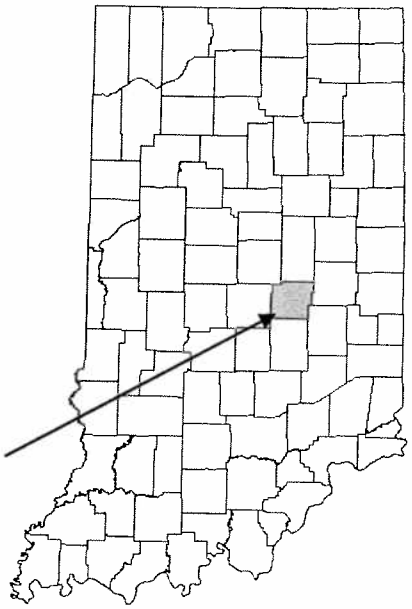
FLOOD INSURANCE STUDY

HANCOCK COUNTY, INDIANA

AND INCORPORATED AREAS

Community Name	*Community Number*
CUMBERLAND, TOWN OF	180510
FORTVILLE, TOWN OF	180372
GREENFIELD, CITY OF	180084
HANCOCK COUNTY (UNINCORPORATED AREAS)	180419
MCCORDSVILLE, TOWN OF	180468
NEW PALESTINE, TOWN OF	180336
*SHIRLEY, TOWN OF	180373
SPRING LAKE, TOWN OF	180346
*WILKINSON, TOWN OF	180103



Preliminary:

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
18059CV000A

DRAFT

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Selected Flood Insurance Rate Map panels for this community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

Old Zone(s)	New Zone
A1 through A30	AE
B	X
C	X

Initial Countywide FIS Effective Date: To be determined

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FLOOD INSURANCE STUDY
HANCOCK COUNTY, INDIANA AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and updates information on the existence and severity of flood hazards in the geographic area of Hancock County, including the City of Greenfield, the Towns of Cumberland, Fortville, McCordsville, New Palestine, Shirley, Spring Lake, and Wilkinson; and the unincorporated areas of Hancock County (referred to collectively herein as Hancock County), and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood-risk data for various areas of the community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

Please note that the Town of Shirley is geographically located in Hancock and Henry Counties. The Town of Shirley is included in its entirety in this FIS report.

Please note that the Towns of Shirley and Wilkinson have no mapped special flood hazard areas.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

The Digital Flood Insurance Rate Map (DFIRM) and FIS report for this countywide study have been produced in digital format. Flood hazard information was converted to meet the Federal Emergency Management Agency (FEMA) DFIRM database specifications and Geographic Information System (GIS) format requirements. The flood hazard information was created and is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community.

1.2 Authority and Acknowledgments

The sources of authority for this FIS are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

Information on the authority and acknowledgements for each jurisdiction included in this countywide FIS report, as compiled from their previously printed FIS reports, are shown below:

Greenfield, City of:	The hydrologic and hydraulic analyses for the February 4, 1987 FIS report (FEMA, 1987a) were performed by U.S. Geologic Survey (USGS), for FEMA, under Interagency Agreement No. IAA-H-9-77, Project Order No. 11. The work was completed in June 1979.
Hancock County: (Unincorporated Areas)	The hydrologic and hydraulic analyses for the April 15, 1982 FIS report (FEMA, 1982a) were performed by Snell Environmental Group, Inc., for FEMA, under Contract No. H-4777. The work was completed in December 1980.
Spring Lake, Town of:	The hydrologic and hydraulic analyses for the October 3, 1983 FIS report (FEMA, 1983) were obtained from the FIS report for Hancock County, Unincorporated Areas.

The hydrologic and hydraulic analyses for this revision were performed by PBS&J, for FEMA, under contract No. HSFE 05-04-D-0015 with FEMA. The work was completed in February of 2006.

1.3 Coordination

The initial and final meeting dates for the previous FIS reports for Hancock County and its communities are listed in the following table:

Community	FIS Date	Initial Meeting	Final Meeting
Greenfield, City of	November 4, 1981 February 4, 1987	November 1975	November 13, 1980
Hancock County (Unincorporated Areas)	April 15, 1982	April 1978	December 8, 1981
Spring Lake, Town of	October 3, 1983	*	January 10, 1983

* Data not available

For this countywide revision, a scoping meeting was held on July 15, 2004, and attended by representatives of Hancock County, the Indiana Department of Natural Resources (IDNR), FEMA, Watershed Concepts, Christopher Burke Engineering, and Michael Baker, Jr. The purpose of this meeting was to discuss the scope of the FIS.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Hancock County, Indiana, including the incorporated communities listed in Section 1.1. The areas studied by detailed methods were selected with priority given to all known flood hazards and areas of projected development or proposed construction through the time of the study.

Streams studied by detailed methods for this countywide revision are listed in Table 1.

Table 1 - Streams Studied by Detailed Methods

Big Blue River	Dry Branch	Putter Ditch
Bills Branch	Jackson Ditch	Rash Ditch
Brandywine Creek	Jackson Arm Ditch	Six Mile Creek
Brier Creek	Little Brandywine Creek	Stansbury Ditch
Briney Ditch	Little Sugar Creek	Sugar Creek
Buck Creek	North Fork	West Fork Bills Branch
Doe Creek	Potts Ditch	

Brandywine Creek, Briney Ditch, and Little Brandywine Creek were restudied for this countywide revision. The newly studied streams for this revision included, Bills Branch, Dry Branch, Jackson Ditch, Jackson Arm Ditch, North Fork, Rash Ditch, Stansbury Ditch, and West Fork Bills Branch. Analyses for these streams were performed by Christopher B. Burke Engineering, LTD.

For this countywide revision, reaches of streams that have been studied by detailed methods were selected for redelineation based on more recent topography. The topographic data was provided by Hancock County and was mapped at 2 foot contour intervals (Hancock County, 2005). Hancock County also provided 2004 color aerial photographs (Hancock County, 2004). The reaches that were redelineated in this revision are shown in Table 2.

Table 2 - Redelineated Streams

Big Blue River	Doe Creek	Putter Ditch
Brier Creek	Little Sugar Creek	Six Mile Creek

Table 2 - Redelineated Streams (*Continued*)

Buck Creek	Potts Ditch	Sugar Creek

Also for this countywide revision, the areas studied by limited detailed methods were selected with priority given to all known flood hazards and areas of projected development or proposed construction. The streams studied by limited detailed methods are listed in Table 3.

Table 3 - Streams Studied by Limited Detailed Methods

Anthony Ditch	Leary Ditch	Ogle Ditch
Ashcraft Ditch	Leary Webber Ditch	Sweet Creek
Barrett Ditch	Marsh and Trees Ditch	Thompson Ditch
Beeler Ditch	Marsh Ditch	Tributary 1 to Wilson Ditch
Brier Arm Ditch	Mary Webber Ditch	Tributary 2 to Wilson Ditch
Cahill Shore Ditch	Maxwell Ditch	Tributary 3 to Wilson Ditch
Cherry Ditch	McFadden Ditch	Tributary to Beeler Ditch
Dewald Ditch	Meralu Hack Ditch	Tributary to Brandywine Creek
Dilly Creek	Mingle Ditch	West Parker Ditch
Keck Ditch	Morris Ditch	Wales Ditch
Kirkoff Ditch	Mud Creek	Wicker Ditch
Kuhn Ditch	Nameless Creek	Williamson Ditch
		Willow Branch

The limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

Approximate analyses were used to study those areas having low development potential or minimal flood hazards. The scope and methods of study were proposed to and agreed upon by FEMA and the IDNR.

The following tabulation presents Letters of Map Correction (LOMCs) incorporated into this countywide study:

LOMC	Case Number	Date Issued	Project Identifier
LOMR	99-05-083P	09/30/1999	Broadway Village (Second Submittal)
LOMR	97-05-4248P	09/10/1998	Putter Ditch, Whitcomb Commons
LOMA	03-05-4469A	09/12/2003	Deer Crossing, Section One, Lots 1 through 10

2.2 Community Description

Hancock County is located in central Indiana, approximately 10 miles east of Indianapolis. The county is boarded by Hamilton and Madison Counties to the north, Henry and Rush counties to the east, Shelby County to the south and Marion County to the west. The total area contained within the county is 313.8

square miles. According to the U.S. Census Bureau, in 2000, the population for Hancock County was 55,391 (U.S. Census, 2006).

The climate in central Indiana is classified as continental. It is primarily influenced by eastward moving masses of cold polar air from the north and warm gulf air from the south. The average winter temperature is 34.5 degrees Fahrenheit (°F) and the average summer temperature is 85.9°F (U.S. Cities Online, 2006). The average annual rainfall for the county is 39.4 inches with slightly higher amounts occurring in the spring and earlier summer than in the remainder of the year (NOAA, 2006).

Hancock County is characterized by gently rolling to nearly flat topography, and primarily consists of agricultural land. Seventy-three percent of the soil in Hancock County consists of the Crosby-Brookston soil association. These soils are characterized by poorly drained, level silt-loams and very poorly drained silt-clay loams on uplands. Seventeen percent of the soil consists of the Miama-Crosby soil association, characterized by well drained soils occurring in rolling uplands and at breaks between the uplands and the bottomlands, paralleling the major streams. Ten percent of the soils are Ockley-Sloan-Shoals soil association, characterized by well drained, somewhat poorly drained, and very poorly drained soils found at nearly level bottomlands along streams (Purdue University and the Soil Conservation Service (SCS)).

Streamflow in Hancock County is drained in a northeast-to-southwest direction. The major streams in the county are the Big Blue River and Sugar Creek with the drainage areas 269 and 94 square miles, respectively, at the southern county line.

Buck Creek is a tributary to Sugar Creek flowing southwest into Marion County. At the western Hancock County line, the drainage area is 22 square miles. Doe and Brier Creeks have a drainage area of 5.2 square miles. Little Sugar Creek, also known as Wilson Ditch is a tributary to Sugar Creek and flows south into Shelby County. At the southern Hancock county line, the drainage area is 26 square miles.

In the center of the county, Brandywine Creek, a tributary flowing southeasterly to the Big Blue River, is 44.7 miles long, and its drainage area is 107 square miles. Little Brandywine Creek, a tributary to Brandywine Creek is 6.8 miles long, and the drainage area is 14.3 square miles. Potts Ditch, a tributary to Brandywine Creek, is 4.0 miles long and the drainage area is 3.5 square miles. Putter Ditch, a tributary to Brandywine Creek, is 0.7 miles long and its drainage area is 0.75 square miles.

The floodplains in Hancock County remain mostly undeveloped, except for the City of Greenfield, which is a highly developed community surrounded by rolling farmland, with a high potential for future growth. Within the floodplains of the

City of Greenfield, development consists of private businesses, municipal buildings and single-family residences.

2.3 Principal Flood Problems

The history of flooding of the streams within Hancock County indicates that flooding may occur during any season of the year. Historical flood peaks and their estimated recurrence intervals are presented in the following table for streams passing through Hancock County.

Stream Gage	Drainage Area (sq. mi)	Flood Date	Peak Discharge (cfs)	Estimated Recurrence Interval (Knipe and Rao, 2005)
03361000 Big Blue River at Carthage, IN (USGS, 2003)	184.00	March 4, 1963	12,900	0.2% annual-chance-flood
		December 30, 1990	7,510	2-4% annual-chance-flood
		November 19, 1994	8,410	4% annual-chance-flood
03361500 Big Blue River at Shelbyville, IN (USGS, 2005a)	421.00	March 9, 1963	15,800	<4% annual-chance-flood
		December 31, 1990	12,800	>2% annual-chance-flood
		November 15, 1994	13,800	<4% annual-chance-flood
		January 6, 2005	15,200	2-4% annual-chance-flood
03362500 Sugar Creek near Edinburgh, IN (USGS, 2005b)	474.00	May 29, 1956	27600	0.5-1% annual-chance-flood
		March 5, 1963	17300	2-4% annual-chance-flood
		May 24, 1968	19900	>4% annual-chance-flood
		July 21, 2969	19300	4% annual-chance-flood
		December 31, 1990	17100	2-4% annual-chance-flood
		November 15, 1993	20500	>4% annual-chance-flood
		January 6, 2005	20100	>4% annual-chance-flood

In May 1956, approximately six inches of rain fell in Hancock County over a three day period. Residents were forced to evacuate their homes, levees and bridges failed, and highways were rendered impassable. A number of peak flow estimates were made for the 1956 flood by the USGS using the method of width contractions (Matthai, 1967). The 1956 flood peak discharge for Buck Creek at Cumberland, drainage area 21.7 square miles, was estimated to be 6,960 cfs, exceeding a 2% annual-chance-flood. The estimated peak discharge for Little Sugar Creek, drainage area of 14.2 square miles, at Pleasant View, was estimated at 6,900 cfs, exceeding the 1% annual-chance-flood.

2.4 Flood Protection Measures

No flood protection measures or structures exist in Hancock County at the time of the study.

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or

exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance (100-year) flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

Pre-Countywide Analysis

For the Big Blue River, the discharges are based on a statistical analysis of discharge records at the Shelbyville and Carthage gaging stations (Nos. 03361500 and 0336100) (IDNR, 1980). This analysis followed the standard log-Pearson Type III method as outlined by the Water Resource Council (WRC, 1967).

Flood discharges for Sugar Creek were obtained by a regional analysis of stream gages for similar watersheds in surrounding basins according to Bulletin No. 17 (WRC, 1967). Doe and Brier Creeks discharges are also based on a regional stream gage analysis.

Buck Creek discharges were previously coordinated for the Flood Insurance Study in Marion County by USACE, Louisville District (FEMA, 2005). These discharges were extrapolated and used in Hancock County. Flood discharges for Little Sugar Creek and Six Mile Creek were determined using the TR-20 computer program developed by the SCS (SCS, 1965). The TR-20 program determines peak flows from rainfall data based on the basin characteristics such as drainage area, stream slope, soil cover, vegetation and land use characteristics.

A combination of methods was used to define discharge-frequency data for Potts Ditch and Putter Ditch. The methods used include: a regional relationship relating basin characteristics to streamflow characteristics (USGS, 1974); regional relationships of streamflow, drainage area, and percentage of urbanization (SCS, 1975); and regional relationships of peak discharge and drainage area for nearby gaging stations having similar hydrologic settings.

Some of the stream gages used include: Gage No. 03361650 on Sugar Creek at New Palestine; Gage No. 03351500 on Fall Creek near Forkville; gage No. 03351400 on Sugar Creek near Middletown and Gage No. 03361000 on Blue River at Carthage with records available from October 1950 to the present (USGS, 1979).

Countywide Analysis

The USACE's HEC-HMS hydrologic model Version 2.2.2 (USACE, 2003(a)), was created for Dry Branch, North Fork, and Stansbury Ditch using the Clark unit hydrograph method and 2-foot contour topographic data provided by Hancock County (Hancock, 2005). Watershed delineation was performed for Dry Branch, North Fork, and Stansbury Ditch using the HEC-GeoHMS (USACE, 2001) GIS toolset with ArcView 3.2 (ESRI, 1999).

Land use data was obtained from the USGS National Land Cover Dataset (USGS, 1992) and was updated to reflect recent residential and commercial developments based upon the 2004 color aerial photography provided by Hancock County (Hancock County, 2004).

Time of concentration calculations were performed manually using the SCS TR-55 methodology (SCS, 1986). The maximum length of the sheet flow component was 100 feet based upon current SCS guidelines. Transition of shallow concentrated flow to channel flow was defined by field observations, the engineer's judgment, or at the inspection of the flow path and a "blue line" drainage element in the Hancock County topographic data.

Muskingum-Cunge (USACE, 1990) 8-point channel routing parameters were derived from representative cross-sections in the detailed HEC-RAS hydraulic models for Dry Branch, North Fork, and Stansbury Ditch.

The peak discharge-frequency relationships for Jackson Ditch, Jackson Arm Ditch, and Rash Ditch were obtained from the equation for the Jackson Ditch coordinated curve. Coordination discharge plots are based on a combination of regression equations, rainfall run-off models, and a review of gage analysis on a particular stream (Knipe and Rao, 2005).

The coordinated discharge plots were also used to determine the peak discharge-frequency relationships for Brandywine Creek, Briney Ditch, and Little Brandywine Creek.

The peak discharge-frequency relationships for Bills Branch and West Fork Bills Branch were estimated using the Glatfelter's regression equations (Glatfelter, 1984). Regression parameters used in these equations include

drainage area, slope, runoff coefficient, 2-year, 24 hour rainfall depth, annual precipitation, and amount of storage in the watershed (Knipe and Rao, 2005).

Peak discharge-drainage area relationships for the 10-, 2-, 1-, and 0.2-percent-annual-chance floods of each flooding source studied in detail in the community are shown in Table 4.

Table 4 - Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
BIG BLUE RIVER					
At County Road 600 South	269.00	10,000	14,000	16,000	18,300
Just upstream of confluence of Nameless Creek	243.00	9,500	13,200	15,000	17,300
Just upstream of confluence of Six Mile Creek	196.00	8,400	11,800	13,300	15,400
BILLS BRANCH					
At 96th Street	1.36	315	468	539	686
Approximately 200 feet upstream of 96th Street	0.76	271	409	471	611
Approximately 400 feet downstream of Pin Oak Drive	0.55	195	293	338	437
At Woody Creek Drive	0.21	66	98	113	145
At Olio Road	0.18	48	70	81	103
Approximately 250 feet downstream of Cardinal Drive	0.15	96	147	170	223
BRANDYWINE CREEK					
At Interstate Highway 74	91.08	3,375	7,025	9,325	13,200
At U.S. Highway 52	65.82	3,000	6,125	8,000	11,300
Just below confluence of Little Brandywine Creek	53.59	2,775	5,625	7,275	10,200
Just below confluence of Putter Ditch	38.60	2,260	4,400	5,600	7,825
Just below confluence of Potts Ditch	37.63	2,220	4,300	5,500	7,650
At County Road 200 North	31.45	1,980	3,750	4,775	6,625
At County Road 500 North	24.33	1,680	3,100	3,875	5,350
BRIER CREEK					
At County Line Road	5.20	1,400	1,950	2,200	2,750
At County Road 200 South	4.70	1,310	1,840	2,080	2,600
At County Road 700 West	4.20	1,250	1,750	1,970	2,480
BUCK CREEK					
At County Line Road	22.90	4,550	6,650	7,650	10,500
Just downstream of confluence of Lead Creek	21.40	4,450	6,500	7,500	10,300
Just upstream of confluence of Snider Branch	19.40	4,300	6,200	7,100	9,900

Table 4 - Summary of Discharges (*Continued*)

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
BUCK CREEK (CONTINUED)					
Just upstream of confluence of Burris Ditch	17.50	4,100	5,900	6,800	9,400
At County Road 300 North	14.40	3,700	5,400	6,200	8,600
At Conrail	11.90	3,400	5,000	5,700	7,900
At County Road 500 North	8.70	2,950	4,350	5,000	6,900
Just upstream of confluence of Jones Ditch	5.40	2,400	3,500	4,000	5,500
At County Road 700 North	3.20	1,900	2,800	3,200	4,300
At County Road 300 West	2.50	1,670	2,440	2,790	3,800
DOE CREEK					
At County Line Road	5.20	1,400	1,960	2,200	2,760
At U.S. Highway 52	4.40	1,280	1,770	1,980	2,500
At County Road 300 South	3.70	1,180	1,660	1,850	2,340
About 3,400 feet upstream of County Road 300 South	2.80	1,020	1,420	1,610	2,030
At County Road 600 West	2.40	940	1,320	1,490	1,890
DRY BRANCH					
At County Line Road	4.80	280	490	600	890
At confluence of Stansbury Ditch	4.10	230	400	480	710
Approximately 1,000 feet upstream of Olio Road	1.80	75	140	170	250
Approximately 1,040 feet upstream of U.S. Highway 36	1.30	50	90	110	170
Approximately 2,230 feet upstream of U.S. Highway 36	0.55	20	40	45	70
LITTLE BRANDYWINE CREEK					
At confluence with Brandywine Creek	14.30	1,170	2,000	2,480	3,350
At U.S. Highway 40	5.41	440	770	950	1,290
Approximately 1,200 feet upstream of County Road 100 North	4.39	350	620	770	1,050
LITTLE SUGAR CREEK					
At confluence with Sugar Creek	31.80	4,700	6,900	8,150	11,000
Just upstream of confluence of Mulliner Ditch	30.00	4,600	6,600	7,800	10,500
Just upstream of confluence of Thompson Ditch	25.60	4,200	6,100	7,200	9,800
At U.S. Highway 52	18.10	3,350	4,900	5,800	7,800
Just upstream of confluence of Maxwell Ditch	12.50	2,650	3,850	4,600	6,200
At County Road 300 South	7.00	1,840	2,700	3,150	4,350
At County Road 200 South	5.30	1,550	2,250	2,680	3,670

Table 4 - Summary of Discharges (*Continued*)

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
NORTH FORK					
At County Line Road	2.60	100	180	215	315
Approximately 1,000 feet downstream of County Road 500 West	1.60	60	100	120	180
At County Road 500 West	0.90	35	60	70	105
POTTS DITCH					
At confluence with Brandywine Creek	3.50	1,070	1,660	2,120	2,900
At Park Avenue	2.89	840	1,270	1,650	2,180
At County Road 100 North	2.21	550	850	1,080	1,500
At Interstate Highway 70	0.81	240	380	510	720
PUTTER DITCH					
At confluence with Brandywine Creek	0.75	510	720	850	1,100
SIX MILE CREEK					
At confluence with Big Blue River	45.60	4,200	5,900	6,600	8,600
At County Road 800 North	44.00	4,100	5,800	6,500	8,400
Just downstream of County Road 900 North	41.10	3,950	5,550	6,250	8,100
Just upstream of confluence of Dilly Creek	32.80	3,500	5,000	5,600	7,200
STANSBURY DITCH					
At confluence with Dry Branch	2.10	140	230	280	420
Approximately 1,070 feet downstream of County Road 700 North	1.70	100	180	210	310
Approximately 500 feet upstream of County Road 700 North	0.90	60	100	120	170
SUGAR CREEK					
Just upstream of confluence of Little Sugar Creek	95.70	7,500	11,000	12,600	16,600
At County Road 450 West	93.90	7,400	10,800	12,300	16,200
At U.S. Highway 40	85.40	7,000	10,300	11,800	15,500
At County Road 200 North	75.80	6,500	9,600	11,000	14,200
At State Highway 13	67.10	6,000	8,800	10,100	13,300
At State Highway 234	50.00	5,100	7,500	8,600	11,300

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the Flood Insurance Rate Map (FIRM) represent rounded whole-foot elevations and

may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data Table in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

Precountywide Analysis

For the City of Greenfield, stream mileposts for the study have been previously determined by the IDNR. These mileposts were later located in the field by the Study Contractor. All cross sections were located and numbered relative to the predetermined mileposts, and stream distances between cross sections are approximate. The stream mileposts are shown on the FIRMs and Flood Boundary Floodway Maps.

For Potts Ditch and Putter Ditch cross sections for the backwater analyses were obtained from aerial photographs flown in April 1976, at a scale of 1:7,200 (Air Maps, 1976); and from two foot contour maps at a scale of 1:2,400 (IDNR, 1974). The below water sections were obtained by field measurements. All bridges, dams and culverts were field surveyed to obtain elevation data and structural geometry.

For the Big Blue River, Brier Creek, Buck Creek, Doe Creek, Little Sugar Creek, Six Mile Creek and Sugar Creek, cross sections for the backwater analysis of the streams studied in detail were obtained in 1979 by field survey and from aerial photographs at a negative scale of 1:7,920 (Mid-States, 1979). All bridges, dams and culverts were field measures to obtain elevation data and structural geometry.

Starting water-surface elevations (WSELs) for the Big Blue River, Sugar Creek and Little Sugar Creek were obtained from the current downstream study for the County of Shelby (FEMA, 1982c).

The starting WSELs for Buck Creek was obtained from the County of Marion, Indiana Flood Insurance Study (FEMA, 2005).

Doe Creek, Brier Creek and Six Mile Creek starting WSELs were derived using the slope-area method. WSELs of floods of the selected recurrence intervals were computed through use of the USACE HEC-2 step-backwater computer program (USACE, 1976).

The starting WSELs for Potts Ditch and Putter Ditch were determined by the slope-area method.

WSELs for Potts Ditch and Putter Ditch were computed through use of the USGS E-431 step-backwater computer program (USGS, 1976). Flood profiles were drawn showing computed WSELs to an accuracy of 0.5 feet for floods of the selected recurrence intervals.

Flood profiles for Big Blue River, Brier Creek, Buck Creek, Doe Creek, Little Sugar Creek, Six Mile Creek and Sugar Creek were drawn showing the computed WSELs for floods of the selected recurrence intervals.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2).

Channel roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and based on field observations of the streams and floodplain areas. Values listed in USGS Water Supply Paper No. 1849, and *Open Channel Hydraulics* were used as guides in choosing the roughness factors (USGS, 1967; Fasken, 1963; and Chow, 1959). Manning's "n" values chosen for each stream studied by detailed methods are presented in the following table.

Stream	Channel	Overbank
Big Blue River	0.030-0.060	0.050-0.120
Brier Creek	0.030-0.080	0.030-0.100
Buck Creek	0.030-0.060	0.030-0.100
Doe Creek	0.030-0.080	0.030-0.100
Little Sugar Creek	0.030-0.080	0.030-0.100
Potts Ditch	0.030-0.080	0.030-0.240
Putter Ditch	0.030-0.080	0.030-0.240
Six Mile Creek	0.030-0.070	0.040-0.075
Sugar Creek	0.030-0.060	0.030-0.100

Countywide Analysis

Cross sections for Briney Ditch, Jackson Ditch, Jackson Arm Ditch, Little Brandywine Creek, and Rash Ditch were obtained from the detailed 2-foot contour mapping supplied by Burgess and Niple and from field survey data.

New cross section geometry for Bills Branch, Brandywine Creek, Dry Branch, North Fork, Stansbury Ditch, and West Fork Bills Branch were derived from the detailed 2-foot contour topographic maps provided by Hancock County (Hancock County, 2005).

The hydraulic analysis was prepared using HEC-RAS (Version 3.1.1) (USACE, 2003b) to compute the WSELs for Bills Branch, Brandywine Creek, Briney Ditch, Dry Branch, Jackson Ditch, Jackson Arm Ditch, Little

Brandywine Creek, North Fork, Rash Ditch, and West Fork Bills Branch. For Stansbury Ditch, the hydraulic analysis was prepared using HEC-RAS (Version 3.1.2) (USACE, 2004).

A known starting WSEL was used for Brandywine Creek.

Starting WSELs on Bills Branch, Briney Ditch, Dry Branch, Jackson Ditch, Jackson Arm Ditch, Little Brandywine Creek, North Fork, Rash Ditch, Stansbury Ditch, and West Fork Bills Branch were calculated using the slope-area method.

The Manning's "n" values for all new detailed studied streams are listed in the following table:

Stream	Channel "n"	Overbank "n"
Bills Branch	0.040	0.070
Brandywine Creek	0.040	0.060-0.100
Briney Ditch	0.030-0.050	0.050-0.080
Dry Branch	0.040-0.075	0.035-0.050
Jackson Ditch	0.040	0.050-0.100
Jackson Arm Ditch	0.040	0.050-0.100
Little Brandywine Creek	0.035-0.04	0.050-0.100
North Fork	0.035-0.050	0.060-0.090
Rash Ditch	0.040-0.045	0.050-0.070
Stansbury Ditch	0.050-0.060	0.070-0.100
West Fork Bills Branch	0.045	0.085

The profile baselines depicted on the FIRM represent the hydraulic modeling baselines that match the flood profiles on this FIS report. As a result of improved topographic data, the profile baseline, in some cases, may deviate significantly from the channel centerline or appear outside the Special Flood Hazard Area.

For this countywide study, cross sections for streams listed in Table 3, Streams Studied by Limited Detailed Methods, were obtained using digital topography and field surveys. The 1-percent-annual-chance WSELs were computed using the USACE's HEC-RAS hydraulic model, version 3.1.2 (USACE, 2004). HEC-GeoRAS was used to delineate the 1-percent-annual-chance floodplain (USACE, 2001). The hydraulic model was prepared using topography from the county (Hancock County, 2005) without surveying bathymetric data. Where bridge or culvert data were readily available, these data were reflected in the hydraulic model. Where structure data were not readily available, field measurements were made to approximate the geometry in the hydraulic models. Models do not include field surveys that determine the specifics of channel and floodplain geometry. A limited detailed study can be upgraded to a full detailed study at a later date by verifying stream channel and overbank geometry, bridge and culvert geometry, and by analyzing multiple recurrence intervals.

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the Flood Profiles (Exhibit 1) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

3.3 Vertical Datum

All FIS reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD). With the finalization of the North American Vertical Datum of 1988 (NAVD), many FIS reports and FIRMs are being prepared using NAVD as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD. Structure and ground elevations in the community must, therefore, be referenced to NAVD. It is important to note that adjacent communities may be referenced to NGVD. This may result in differences in Base Flood Elevations (BFEs) across the corporate limits between the communities. In this revision, an average vertical datum conversion of -0.4 foot was calculated and used to convert all elevations in Hancock County from NGVD to NAVD using the National Geodetic Survey's VERTCON online utility (VERTCON, 2005). The data points used to determine the conversion are listed in Table 5.

Table 5 - Vertical Datum Conversion

Quad Name	Corner	Latitude	Longitude	Conversion from NGVD to NAVD
McCordsville	SW	39.87	-86.00	-0.443 feet
McCordsville	SE	39.87	-85.87	-0.413 feet
Ingalls	SE	39.87	-85.75	-0.407 feet
Pendleton	SE	39.87	-85.62	-0.404 feet
Cleveland	SE	39.75	-85.62	-0.410 feet
Greenfield	SE	39.75	-85.75	-0.387 feet
Cumberland	SE	39.75	-85.87	-0.374 feet
Cumberland	SW	39.75	-86.00	-0.367 feet
			Average	**-0.401 feet**

For more information on NAVD, see the FEMA publication entitled *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988* (FEMA, June 1992), or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Silver Spring, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access these data.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each FIS provides 1-percent-annual-chance (100-year) flood elevations and delineations of the 1- and 0.2-percent-annual-chance (500-year) floodplain boundaries and 1-percent-annual-chance floodway to assist communities in developing floodplain management measures. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data Table, and Summary of Stillwater Elevations Table. Users should reference the data presented in the FIS report as well as additional information that may be available at the local map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied by detailed methods, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections on the Big Blue River, Brier Creek, Buck Creek, Doe Creek, Little Sugar Creek, Six Mile Creek and Sugar Creek the boundaries were interpolated using topographic maps at a scale of 1:4,800 with a contour interval of 2 feet (Mid-States Engineering, 1979-1980). Between cross sections on Potts Ditch and Putter Ditch the boundaries were interpolated using topographic maps at a scale of 1:2,400 with a contour interval of 2 feet (IDNR, 1974). For Brandywine Creek and Dry Branch, between cross sections the boundaries were interpolated using topographic maps at a scale of 1:300 with a contour interval of 2 feet. For Bills Branch, Briney Ditch, Little Brandywine Creek, North Fork, Stansbury Ditch, and West Fork Bills Branch, between cross sections the boundaries were interpolated using topographic maps at a scale of 1:200 with a contour interval of 2 feet. Between cross sections on Jackson Ditch, Jackson Arm Ditch, and Rash Ditch boundaries were interpolated using topographic maps at a scale of 1:400 with a contour interval of 2 feet (Hancock, 2005).

The floodplain boundaries for the following streams were redelineated using digital topographic data with a contour interval of 2 feet (Burgess and Niple, 2005): Big Blue River, Brier Creek, Buck Creek, Doe Creek, Little Sugar Creek, Potts Ditch, Putter Ditch, Six Mile Creek and Sugar Creek.

For the steams studied by approximate methods, the boundary of the 1-percent flood was developed from normal depth calculations and the maps referenced above. For Sugar Creek, the approximate flood boundaries were transferred from a map of flood prone areas prepared by the USGS (USGS, 1970). These boundaries were estimated from profiles based on high water marks and regional stage-frequency relations. Approximate areas were taken from the Flood Hazard Boundary Map of Hancock County (FIA, 1977).

For portions of Big Blue River, Prairie Branch, Sweet Creek, West Little Sugar Creek, and Willow Branch, studied by approximate methods, the boundary of the 1-percent-annual-chance flood was developed from the Flood Hazard Boundary Map for Hamilton County (FEMA, 2003).

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM (Exhibit 2).

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent-annual-chance flood can be carried without substantial

increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced.

The State of Indiana, however, per Indiana Code IC 14-28-1 and Indiana Administrative Code 312 IAC 10, has designated that encroachment in the floodplain is limited to that which will cause no significant increase in flood height. As a result, floodways for this study are delineated based on a flood surcharge of less than 0.15 feet. The floodways in this study were approved by the IDNR, and are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this FIS report and on the FIRM were computed for certain stream segments on the basis of equal-conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations have been tabulated for selected cross sections (Table 6). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the WSEL of the 1-percent-annual-chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BIG BLUE RIVER								
A	217,694	1,614	8,839	1.8	832.1	832.1	832.1	0.0
B	221,126	1,993	8,531	1.9	835.2	835.2	835.2	0.0
C	222,763	2,572	8,696	1.8	836.1	836.1	836.1	0.0
D	224,400	3,114	12,069	1.3	837.1	837.1	837.1	0.0
E	225,773	3,052	7,161	2.2	837.9	837.9	837.9	0.0
F	229,416	2,056	5,042	3.0	840.6	840.6	840.6	0.0
G	230,578	1,820	6,622	2.3	841.6	841.6	841.6	0.0
H	233,112	1,158	4,957	3.0	843.4	843.4	843.4	0.0
I	236,227	1,238	7,100	1.9	846.0	846.0	846.0	0.0
J	238,181	1,356	7,016	1.9	847.8	847.8	847.8	0.0
K	239,184	1,451	6,344	2.1	848.7	848.7	848.7	0.0
L	240,874	1,150	5,309	2.5	849.7	849.7	849.7	0.0

[1]Feet above mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BIG BLUE RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BILLS BRANCH								
A	309	134	134	3.7	791.9	791.9	791.9	0.0
B	1,319	168	210	1.6	798.6	798.6	798.6	0.0
C	2,156	77	75	4.5	804.5	804.5	804.5	0.0
D	2,802	62	97	3.5	809.9	809.9	809.9	0.0
E	3,434	15	19	5.9	814.2	814.2	814.2	0.0
F	4,123	170	659	0.2	829.6	829.6	829.6	0.0
G	4,799	68	86	1.3	829.7	829.7	829.7	0.0
H	5,284	117	270	0.4	835.5	835.5	835.5	0.0
I	5,754	40	47	2.5	835.6	835.6	835.6	0.0
J	6,379	9	19	4.3	838.3	838.3	838.3	0.0

[1]Feet above East 96th Street

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BILLS BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BRANDYWINE CREEK								
A	1,162	1,324	5,007	1.5	831.3	831.3	831.4	0.1
B	4,607	1,050	4,357	1.7	833.8	833.8	833.9	0.1
C	7,856	1,776	6,837	1.1	837.3	837.3	837.4	0.1
D	9,492	1,209	3,071	2.4	838.0	838.0	838.1	0.1
E	14,084	1,118	3,847	2.1	842.3	842.3	842.4	0.1
F	17,219	1,366	4,294	1.7	845.1	845.1	845.2	0.1
G	19,713	1,642	4,566	1.6	848.2	848.2	848.2	0.0
H	22,550	1,070	4,332	1.7	850.2	850.2	850.3	0.1
I	24,775	778	2,777	2.6	852.5	852.5	852.6	0.1
J	26,538	840	3,822	1.5	854.9	854.9	855.0	0.1
K	29,957	1,015	3,862	1.5	856.6	856.6	856.7	0.1
L	31,796	771	2,777	2.0	857.1	857.1	857.2	0.1
M	33,688	363	1,941	2.9	860.7	860.7	860.7	0.0
N	35,585	397	2,026	2.7	862.4	862.4	862.4	0.0
O	36,822	830	4,156	1.3	862.8	862.8	862.9	0.1
P	38,948	644	2,137	2.4	866.9	866.9	867.0	0.1
Q	39,823	755	5,441	0.9	868.3	868.3	868.3	0.0
R	44,152	563	3,583	1.3	869.1	869.1	869.2	0.1
S	45,556	499	3,220	1.5	870.5	870.5	870.6	0.1
T	50,003	1,020	4,733	1.4	871.7	871.7	871.8	0.1
U	53,120	737	4,044	1.8	872.9	872.9	873.0	0.1

[1]Feet above county boundary

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BRANDYWINE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BRANDYWINE CREEK (CONTINUED)								
V	56,123[1]	310	1,474	3.0	875.7	875.7	875.8	0.1
W	57,731[1]	290	1,286	3.4	877.1	877.1	877.2	0.1
X	59,056[1]	730	4,722	0.9	880.6	880.6	880.6	0.0
Y	64,077[1]	510	2,053	1.9	881.7	881.7	881.8	0.1
Z	65,471[1]	480	1,953	2.0	882.7	882.7	882.8	0.1
AA	67,104[1]	670	2,430	1.6	884.0	884.0	884.1	0.1
AB	68,628[1]	225	1,408	2.8	886.9	886.9	887.0	0.1
BRIER CREEK								
A	501[2]	331	972	2.3	827.5	827.5	827.5	0.0
B	1,151[2]	305	1,112	2.0	828.0	828.0	828.0	0.0
C	2,016[2]	169	402	5.5	829.1	829.1	829.1	0.0
D	2,616[2]	381	988	2.2	830.6	830.6	830.6	0.0
E	3,536[2]	183	365	6.0	831.6	831.6	831.6	0.0
F	4,296[2]	340	1,039	2.1	833.7	833.7	833.7	0.0
G	6,423[2]	428	983	2.2	837.2	837.2	837.2	0.0
H	7,163[2]	289	546	4.0	838.5	838.5	838.5	0.0
I	8,483[2]	404	1,034	2.0	841.5	841.5	841.5	0.0
J	9,093[2]	172	479	4.3	841.9	841.9	841.9	0.0
K	11,274[2]	630	2,015	1.0	845.1	845.1	845.1	0.0
L	12,908[2]	535	1,028	1.9	845.6	845.6	845.6	0.0

[1]Feet above county boundary

[2]Feet above County Road 800 West

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BRANDYWINE CREEK - BRIER CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BRINEY DITCH								
A	565	46	119	5.4	860.3	860.3	860.3	0.0
B	1,326	277	563	1.1	861.8	861.8	861.9	0.1
C	2,452	176	216	2.9	863.1	863.1	863.2	0.1
D	3,981	150	341	1.9	866.5	866.5	866.5	0.0
E	5,580	235	481	1.3	869.6	869.6	869.7	0.1
F	6,694	171	289	2.2	871.3	871.3	871.4	0.1
G	7,884	165	323	2.0	873.6	873.6	873.7	0.1
H	9,094	171	332	1.9	875.7	875.7	875.8	0.1
I	9,994	65	160	4.0	877.5	877.5	877.6	0.1
J	11,382	113	180	2.8	880.8	880.8	880.9	0.1
K	12,389	100	231	2.2	883.2	883.2	883.3	0.1
L	13,751	110	214	2.4	886.0	886.0	886.1	0.1
M	14,797	140	300	1.7	888.1	888.1	888.2	0.1
N	15,997	96	235	2.2	889.7	889.7	889.8	0.1
O	16,746	73	182	1.4	890.4	890.4	890.5	0.1
P	17,560	34	80	3.3	891.6	891.6	891.7	0.1
Q	19,135	182	232	1.1	894.9	894.9	895.0	0.1

[1]Feet above confluence with Little Brandywine Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BRINEY DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BUCK CREEK								
A	1,842	530	4,548	1.7	833.9	833.9	833.9	0.0
B	3,327	655	6,143	1.2	834.7	834.7	834.7	0.0
C	4,857	865	6,292	1.2	834.8	834.8	834.8	0.0
D	6,087	782	4,381	1.7	834.9	834.9	834.9	0.0
E	8,157	652	3,736	2.0	835.2	835.2	835.2	0.0
F	9,407	808	3,772	2.0	835.5	835.5	835.5	0.0
G	14,827	686	3,229	2.2	840.1	840.1	840.1	0.0
H	16,617	795	3,112	2.3	840.9	840.9	840.9	0.0
I	18,537	602	2,438	2.9	842.0	842.0	842.0	0.0
J	19,877	646	2,540	2.8	842.7	842.7	842.7	0.0
K	22,391	800	3,124	2.2	844.5	844.5	844.5	0.0
L	24,208	644	2,655	2.6	845.2	845.2	845.2	0.0
M	26,682	662	3,424	2.0	847.8	847.8	847.8	0.0
N	27,592	716	3,562	1.9	848.0	848.0	848.0	0.0
O	30,502	1,190	5,650	1.1	848.9	848.9	848.9	0.0
P	32,297	778	2,596	2.4	849.2	849.2	849.2	0.0
Q	33,137	710	1,561	3.7	849.5	849.5	849.5	0.0
R	34,796	837	5,587	1.0	853.3	853.3	853.3	0.0
S	36,016	624	4,711	1.2	853.3	853.3	853.3	0.0
T	36,793	651	3,582	1.6	853.5	853.5	853.5	0.0
U	37,633	1,269	5,884	1.0	853.6	853.6	853.6	0.0

[1]Feet above County Road 800 West

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BUCK CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BUCK CREEK (CONTINUED)								
V	39,193	1,576	5,569	1.0	853.6	853.6	853.6	0.0
W	40,828	2,445	7,219	0.8	853.7	853.7	853.7	0.0
X	43,469	2,710	10,853	0.4	853.8	853.8	853.8	0.0
Y	44,959	2,094	6,915	0.7	853.8	853.8	853.8	0.0
Z	46,374	1,634	6,260	0.7	853.8	853.8	853.8	0.0
AA	47,607	1,349	5,312	0.9	853.9	853.9	853.9	0.0
AB	49,622	1,362	4,470	0.8	854.0	854.0	854.0	0.0
AC	51,312	1,098	3,509	1.1	854.1	854.1	854.1	0.0
AD	53,690	984	1,844	2.0	854.7	854.7	854.7	0.0
AE	55,931	999	2,180	1.3	856.3	856.3	856.3	0.0
AF	57,071	1,070	2,718	1.0	856.5	856.5	856.5	0.0
AG	58,491	891	2,316	1.2	856.7	856.7	856.7	0.0
AH	59,267	875	2,014	1.4	856.8	856.8	856.8	0.0

[1]Feet above County Road 800 West

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

BUCK CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
DOE CREEK								
A	788	310	976	2.3	807.2	807.2	807.2	0.0
B	1,548	329	618	3.6	808.2	808.2	808.2	0.0
C	3,838	288	597	3.7	812.8	812.8	812.8	0.0
D	4,818	320	1,018	2.2	815.8	815.8	815.8	0.0
E	6,118	274	845	2.6	818.9	818.9	818.9	0.0
F	7,068	299	1,170	1.9	821.7	821.7	821.7	0.0
G	8,148	382	1,208	1.8	823.8	823.8	823.8	0.0
H	8,928	247	799	2.5	824.8	824.8	824.8	0.0
I	11,020	429	2,512	0.8	833.4	833.4	833.4	0.0
J	13,289	810	2,034	0.9	833.7	833.7	833.7	0.0
K	14,744	602	1,462	1.3	833.8	833.8	833.8	0.0
L	16,157	464	719	2.6	835.8	835.8	835.8	0.0
M	17,448	298	619	2.6	837.6	837.6	837.6	0.0
N	18,548	298	659	2.4	838.9	838.9	838.9	0.0
O	19,798	373	883	1.8	839.8	839.8	839.8	0.0
P	20,658	457	917	1.6	840.3	840.3	840.3	0.0
Q	23,232	560	976	1.5	842.9	842.9	842.9	0.0
R	24,392	273	465	3.2	843.9	843.9	843.9	0.0

[1]Feet above County Road 800 West

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

DOE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
DRY BRANCH								
A	14,247	167	468	1.5	831.8	831.8	831.8	0.0
B	14,626	106	201	3.1	832.7	832.7	832.8	0.1
C	15,138	194	299	2.1	834.8	834.8	834.9	0.1
D	15,700	124	343	1.6	835.8	835.8	835.9	0.1
E	16,773	45	196	2.6	837.7	837.7	837.8	0.1
F	17,916	61	231	2.4	840.1	840.1	840.2	0.1
G	18,414	50	128	3.6	841.4	841.4	841.5	0.1
H	19,263	98	230	1.2	843.0	843.0	843.1	0.1
I	19,600	35	90	2.1	843.2	843.2	843.3	0.1
J	20,108	33	89	2.4	844.3	844.3	844.4	0.1
K	20,906	30	114	1.7	846.0	846.0	846.0	0.0
L	21,920	24	80	1.7	846.9	846.9	847.0	0.1
M	22,784	25	84	1.7	847.9	847.9	847.9	0.0
N	24,534	22	74	1.6	851.0	851.0	851.0	0.0
O	25,348	18	46	1.0	852.0	852.0	852.1	0.1
P	26,150	18	41	1.1	852.8	852.8	852.9	0.1
Q	26,572	25	65	0.7	854.2	854.2	854.3	0.1
R	27,167	18	44	1.0	854.6	854.6	854.6	0.0
S	27,650	23	40	1.1	854.9	854.9	854.9	0.0
T	28,950	18	30	1.5	856.1	856.1	856.1	0.0
U	29,695	16	34	1.3	857.7	857.7	857.7	0.0

[1]Feet above confluence with Fall Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

DRY BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
JACKSON DITCH								
A	2,110	58	194	4.1	845.1	845.1	845.1	0.0
B	2,976	40	160	5.0	847.7	847.7	847.7	0.0
C	3,451	40	170	4.7	850.0	850.0	850.0	0.0
D	4,005	125	610	1.3	852.4	852.4	852.4	0.0
E	5,788	94	766	1.0	854.8	854.8	854.9	0.1
F	7,710	44	264	1.7	854.9	854.9	855.0	0.1
G	8,620	193	433	1.0	855.1	855.1	855.2	0.1
H	12,827	34	144	9.0	856.4	856.4	856.5	0.1
I	15,737	200	560	0.2	857.1	857.1	857.2	0.1

[1]Feet above county boundary

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

JACKSON DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
JACKSON ARM DITCH								
A	728	25	94	3.0	856.2	853.6[2]	853.6	0.0
B	1,309	29	91	3.0	856.2	854.4[2]	854.4	0.0
C	2,176	31	134	2.2	856.2	856.1[2]	856.1	0.0
D	3,440	56	290	1.4	857.6	857.6	857.6	0.0
E	4,369	37	309	1.7	857.8	857.8	857.8	0.0
F	5,423	26	243	2.4	858.2	858.2	858.2	0.0
G	6,546	50	682	2.1	859.0	859.0	859.0	0.0
H	8,075	160	1,030	0.5	861.9	861.9	862.0	0.1
I	8,973	164	557	0.4	861.9	861.9	862.0	0.1
J	10,097	51	128	1.2	862.0	862.0	862.1	0.1
K	11,220	16	50	2.0	862.4	862.4	862.5	0.1
L	12,273	42	94	1.3	863.1	863.1	863.2	0.1
M	12,879	53	239	0.7	864.9	864.9	865.0	0.1
N	14,350	178	499	0.2	865.0	865.0	865.1	0.1

[1]Feet above confluence with Jackson Ditch

[2]Elevations without consideration of backwater effects from Jackson Ditch

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

JACKSON ARM DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE BRANDYWINE CREEK								
A	1,759	370	871	2.9	855.5	855.5	855.6	0.1
B	1,996	450	1,332	1.9	856.3	856.3	856.3	0.0
C	2,653	220	833	3.0	856.8	856.8	856.9	0.1
D	3,548	422	1,575	1.6	858.2	858.2	858.3	0.1
E	4,410	350	1,108	1.7	858.6	858.6	858.7	0.1
F	5,452	65	249	4.8	859.3	859.3	859.4	0.1
G	5,667	110	385	3.1	860.0	860.0	860.1	0.1
H	6,247	110	205	5.8	861.1	861.1	861.2	0.1
I	7,742	125	347	3.4	866.3	866.3	866.3	0.0
J	8,660	150	500	2.4	868.5	868.5	868.6	0.1
K	9,511	175	378	3.2	869.8	869.8	869.9	0.1
L	12,015	180	534	2.0	874.6	874.6	874.7	0.1
M	13,711	139	352	3.0	876.8	876.8	876.9	0.1
N	14,528	197	454	2.3	878.6	878.6	878.7	0.1
O	16,000	140	445	2.4	880.7	880.7	880.8	0.1
P	16,912	330	1,009	0.9	882.8	882.8	882.8	0.0
Q	17,962	191	459	2.1	883.2	883.2	883.3	0.1
R	19,212	154	448	2.1	885.0	885.0	885.1	0.1
S	20,453	165	487	2.0	886.5	886.5	886.6	0.1
T	21,721	99	229	4.2	888.8	888.8	888.9	0.1
U	22,988	191	447	2.1	891.2	891.2	891.3	0.1

[1]Feet above confluence with Brandywine Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE BRANDYWINE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE BRANDYWINE CREEK (CONTINUED)								
V	23,886	326	638	1.2	891.8	891.8	891.9	0.1
W	24,457	130	345	2.2	892.4	892.4	892.5	0.1
X	25,263	29	117	6.6	893.7	893.7	893.7	0.0
Y	26,268	77	233	3.3	896.3	896.3	896.3	0.0
Z	27,381	111	254	3.0	897.5	897.5	897.5	0.0
AA	28,397	50	149	5.2	899.7	899.7	899.7	0.0
AB	28,651	266	525	1.1	900.8	900.8	900.8	0.0
AC	29,518	155	239	1.0	901.4	901.4	901.5	0.1
AD	30,670	100	186	1.3	903.1	903.1	903.1	0.0
AE	31,441	195	256	0.9	904.0	904.0	904.1	0.1
AF	33,511	26	93	1.5	905.8	905.8	905.8	0.0
AG	33,911	100	101	1.4	906.1	906.1	906.1	0.0
AH	35,076	230	152	0.9	906.4	906.4	906.4	0.0
AI	35,742	16	39	3.6	907.1	907.1	907.1	0.0
AJ	36,657	19	53	2.6	909.5	909.5	909.5	0.0
AK	36,905	22	72	1.9	910.5	910.5	910.6	0.1

[1]Feet above confluence with Brandywine Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE BRANDYWINE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE SUGAR CREEK								
A	14,522	660	4,555	1.7	806.7	806.7	806.7	0.0
B	14,992	520	3,217	2.3	806.8	806.8	806.8	0.0
C	15,542	639	3,414	2.2	806.9	806.9	806.9	0.0
D	16,542	915	3,631	2.1	807.8	807.8	807.8	0.0
E	17,922	472	1,974	3.8	808.4	808.4	808.4	0.0
F	19,742	421	1,471	4.0	810.3	810.3	810.3	0.0
G	21,357	746	1,988	3.0	813.5	813.5	813.5	0.0
H	22,837	696	1,910	3.1	815.3	815.3	815.3	0.0
I	23,922	668	1,943	3.0	816.4	816.4	816.4	0.0
J	25,172	337	1,170	4.6	817.3	817.3	817.3	0.0
K	28,319	452	3,139	1.7	825.8	825.8	825.8	0.0
L	29,369	731	3,874	1.4	826.3	826.3	826.3	0.0
M	32,549	593	2,577	2.1	828.4	828.4	828.4	0.0
N	33,409	721	2,529	2.1	829.2	829.2	829.2	0.0
O	34,261	634	2,178	2.5	830.3	830.3	830.3	0.0
P	34,981	506	1,433	3.1	831.0	831.0	831.0	0.0
Q	36,211	786	2,671	1.7	832.9	832.9	832.9	0.0
R	38,051	781	1,724	2.6	833.6	833.6	833.6	0.0
S	39,755	469	1,207	3.7	836.0	836.0	836.0	0.0
T	41,075	519	1,632	2.8	837.3	837.3	837.3	0.0

[1]Feet above confluence with Sugar Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE SUGAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE SUGAR CREEK (CONTINUED)								
U	43,035[1]	399	1,002	4.5	838.2	838.2	838.2	0.0
V	44,485[1]	663	2,140	2.1	839.7	839.7	839.7	0.0
W	46,380[1]	1,042	3,823	1.0	842.5	842.5	842.5	0.0
X	47,830[1]	1,010	3,025	1.3	842.7	842.7	842.7	0.0
Y	49,470[1]	825	1,670	2.3	843.2	843.2	843.2	0.0
Z	50,800[1]	422	929	4.1	845.1	845.1	845.1	0.0
NORTH FORK								
A	305[2]	22	35	6.9	820.7	820.7	820.7	0.0
B	843[2]	57	103	2.9	823.2	823.2	823.2	0.0
C	3,226[2]	59	111	3.0	831.9	831.9	831.9	0.0
D	4,411[2]	26	75	2.3	835.0	835.0	835.1	0.1
E	5,694[2]	14	46	3.8	838.9	838.9	839.0	0.1
F	6,558[2]	30	61	3.1	840.7	840.7	840.8	0.1
G	7,854[2]	19	65	2.6	843.5	843.5	843.6	0.1
H	9,229[2]	28	104	1.2	847.6	847.6	847.7	0.1
I	11,525[2]	28	64	2.3	849.0	849.0	849.1	0.1
J	15,252[2]	12	13	2.8	853.4	853.4	853.4	0.0

[1]Feet above confluence with Sugar Creek
[2]Feet above county boundary

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE SUGAR CREEK - NORTH FORK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
POTTS DITCH								
A	1,795	187	399	4.6	869.5	869.5	869.5	0.0
B	1,954	109	383	4.8	872.0	872.0	872.0	0.0
C	2,323	187	507	3.7	873.8	873.8	873.8	0.0
D	4,013	431	1,278	1.5	883.6	883.6	883.6	0.0
E	4,277	326	1,827	1.0	883.6	883.6	883.6	0.0
F	4,541	279	1,078	1.7	883.8	883.8	883.8	0.0
G	5,069	235	1,014	1.8	884.0	884.0	884.0	0.0
H	5,966	165	676	2.7	884.4	884.4	884.4	0.0
I	6,494	335	903	1.8	885.1	885.1	885.1	0.0
J	6,653	400	524	3.2	885.3	885.3	885.3	0.0
K	6,864	366	523	3.2	886.3	886.3	886.3	0.0
L	7,709	85	256	5.7	888.2	888.2	888.2	0.0
M	8,870	394	687	1.9	891.1	891.1	891.1	0.0
N	10,138	192	511	2.1	892.6	892.6	892.6	0.0
O	11,616	361	1,353	0.7	893.8	893.8	893.9	0.1
P	12,725	171	633	1.5	893.9	893.9	894.0	0.1
Q	13,728	121	616	1.2	894.3	894.3	894.4	0.1
R	14,731	65	312	2.3	895.3	895.3	895.4	0.1
S	15,629	91	565	1.3	900.3	900.3	900.3	0.0
T	17,054	53	212	3.4	901.8	901.8	901.8	0.0
U	18,480	453	502	1.5	903.2	903.2	903.2	0.0

[1]Feet above confluence with Brandywine Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

POTTS DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
PUTTER DITCH								
A	454	493	2,342	0.4	861.7	860.2[2]	860.2	0.0
B	718	153	518	1.6	861.3	861.3[2]	861.3	0.0
C	1,024	214	426	2.0	862.4	862.4	862.4	0.0
D	1,431	84	188	4.5	864.8	864.8	864.8	0.0
E	1,610	62	136	5.6	866.2	866.2	866.2	0.0
F	1,927	111	316	2.4	868.0	868.0	868.0	0.0
G	2,138	112	221	3.4	869.6	869.6	869.6	0.0
H	2,402	111	269	2.8	871.4	871.4	871.4	0.0
I	2,508	219	1,067	0.6	878.4	878.4	878.4	0.0
J	2,666	128	788	1.2	878.4	878.4	878.5	0.1
K	2,878	137	666	1.6	878.4	878.4	878.5	0.1
L	3,274	78	296	3.3	878.5	878.5	878.6	0.1

[1]Feet above confluence with Brandywine Creek
[2]Elevation computed without consideration of backwater effects from Brandywine Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

PUTTER DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
RASH DITCH								
A	577	39	95	3.1	854.3	852.3[2]	852.3	0.0
B	2,316	72	152	1.8	854.9	854.9	855.0	0.1
C	3,381	47	101	2.7	856.0	856.0	856.0	0.0
D	4,177	73	243	1.1	856.5	856.5	856.5	0.0
E	4,977	70	160	1.7	856.7	856.7	856.7	0.0
F	6,616	167	187	1.0	858.7	858.7	858.8	0.1
G	7,722	48	130	1.5	859.3	859.3	859.4	0.1
H	8,829	38	113	1.7	859.8	859.8	859.9	0.1
I	11,071	33	78	1.6	861.6	861.6	861.7	0.1
J	12,207	17	37	3.3	862.9	862.9	862.9	0.0

[1]Feet above confluence with Jackson Ditch

[2]Elevation without consideration of backwater effects from Jackson Ditch

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

RASH DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SIX MILE CREEK								
A	2,539[1]	787	2,964	2.2	846.8	846.8	846.8	0.0
B	5,359[1]	856	2,385	2.8	850.6	850.6	850.6	0.0
C	6,759[1]	1,479	4,223	1.6	852.3	852.3	852.3	0.0
D	17,328[1]	764	2,383	2.7	868.8	868.8	868.8	0.0
E	19,173[1]	883	2,296	2.8	871.0	871.0	871.0	0.0
F	23,043[1]	500	1,694	3.3	878.6	878.6	878.6	0.0
STANSBURY DITCH								
A	577[2]	28	86	3.2	842.9	842.9	843.0	0.1
B	1,347[2]	26	94	2.9	845.7	845.7	845.8	0.1
C	2,228[2]	41	191	1.4	849.0	849.0	849.1	0.1
D	2,986[2]	157	579	0.5	851.9	851.9	852.0	0.1
E	3,671[2]	68	287	0.8	852.4	852.4	852.5	0.1
F	4,775[2]	23	101	2.2	852.9	852.9	853.0	0.1
G	6,413[2]	30	131	1.7	856.8	856.8	856.9	0.1
H	6,945[2]	48	138	1.6	857.3	857.3	857.4	0.1
I	8,498[2]	16	65	1.8	858.3	858.3	858.4	0.1
J	10,278[2]	21	103	1.2	860.1	860.1	860.1	0.0
K	12,621[2]	35	89	1.4	861.3	861.3	861.4	0.1

[1]Feet above confluence with Big Blue River
[2]Feet above confluence with Dry Branch

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

SIX MILE CREEK - STANSBURY DITCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SUGAR CREEK								
A	190,450	967	5,768	2.2	794.8	794.8	794.8	0.0
B	191,875	1,454	6,875	1.8	795.1	795.1	795.1	0.0
C	192,720	875	3,964	3.2	795.3	795.3	795.3	0.0
D	194,251	534	2,547	4.9	796.5	796.5	796.5	0.0
E	195,677	419	3,150	4.0	798.0	798.0	798.0	0.0
F	196,469	698	3,286	3.8	798.8	798.8	798.8	0.0
G	197,736	426	2,922	4.3	801.2	801.2	801.2	0.0
H	198,422	685	4,940	2.5	801.8	801.8	801.8	0.0
I	200,534	712	6,464	1.9	805.1	805.1	805.1	0.0
J	203,227	565	4,459	2.8	806.4	806.4	806.4	0.0
K	205,075	749	7,044	1.7	806.8	806.8	806.8	0.0
L	206,765	819	7,081	1.7	807.0	807.0	807.0	0.0
M	208,349	1,035	5,886	2.1	807.1	807.1	807.1	0.0
N	209,246	477	2,769	4.4	808.0	808.0	808.0	0.0
O	210,461	492	4,368	2.8	812.3	812.3	812.3	0.0
P	211,939	542	4,887	2.5	813.3	813.3	813.3	0.0
Q	212,837	522	4,738	2.6	813.7	813.7	813.7	0.0
R	213,682	603	5,592	2.2	814.4	814.4	814.4	0.0
S	215,160	830	3,076	4.0	815.3	815.3	815.3	0.0
T	217,114	563	4,138	3.0	818.7	818.7	818.7	0.0
U	218,434	798	6,282	2.0	819.1	819.1	819.1	0.0

[1]Feet above mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

SUGAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SUGAR CREEK (CONTINUED)								
V	220,651	763	4,880	2.5	819.4	819.4	819.4	0.0
W	222,077	740	5,119	2.4	819.8	819.8	819.8	0.0
X	224,189	758	3,466	3.5	821.3	821.3	821.3	0.0
Y	225,614	625	2,619	4.7	823.6	823.6	823.6	0.0
Z	227,251	596	5,615	2.1	826.8	826.8	826.8	0.0
AA	228,730	1,087	9,511	1.2	827.0	827.0	827.0	0.0
AB	231,158	760	5,375	2.2	827.6	827.6	827.6	0.0
AC	233,693	919	6,326	1.9	829.2	829.2	829.2	0.0
AD	234,590	1,295	8,326	1.4	829.6	829.6	829.6	0.0
AE	236,122	770	3,979	3.0	830.1	830.1	830.1	0.0
AF	237,125	606	3,391	3.5	831.2	831.2	831.2	0.0
AG	240,979	894	5,723	2.1	836.1	836.1	836.1	0.0
AH	242,194	819	4,835	2.4	837.6	837.6	837.6	0.0
AI	243,038	534	3,621	3.3	839.5	839.5	839.5	0.0
AJ	243,883	670	3,451	3.4	840.7	840.7	840.7	0.0
AK	245,467	812	5,296	2.1	842.4	842.4	842.4	0.0
AL	246,998	1,180	2,727	4.0	842.6	842.6	842.6	0.0
AM	250,853	782	3,902	2.8	844.2	844.2	844.2	0.0
AN	251,909	1,011	6,256	1.8	844.8	844.8	844.8	0.0

[1]Feet above mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

SUGAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SUGAR CREEK (CONTINUED)								
AO	253,334	1,517	7,563	1.5	844.9	844.9	844.9	0.0
AP	255,182	892	2,981	3.7	845.3	845.3	845.3	0.0
AQ	256,450	699	3,137	3.5	847.1	847.1	847.1	0.0
AR	258,086	1,216	5,559	2.0	850.2	850.2	850.2	0.0
AS	259,934	1,065	3,488	3.2	850.8	850.8	850.8	0.0
AT	262,205	981	7,371	1.5	854.9	854.9	854.9	0.0
AU	263,208	1,005	5,576	2.0	855.3	855.3	855.3	0.0
AV	266,376	1,188	6,187	1.6	855.9	855.9	855.9	0.0
AW	267,802	1,463	5,000	2.0	856.1	856.1	856.1	0.0
AX	268,858	1,269	2,962	3.4	856.5	856.5	856.5	0.0
AY	272,078	745	3,073	3.3	859.9	859.9	859.9	0.0
AZ	274,032	339	2,435	4.1	861.3	861.3	861.3	0.0
BA	275,458	412	3,344	3.0	863.6	863.6	863.6	0.0
BB	277,042	467	3,368	3.0	864.9	864.9	864.9	0.0
BC	278,837	681	5,343	1.9	865.3	865.3	865.3	0.0
BD	280,157	511	4,354	2.3	865.6	865.6	865.6	0.0
BE	280,843	670	4,703	2.1	866.2	866.2	866.2	0.0
BF	281,688	1,056	7,164	1.4	866.7	866.7	866.7	0.0
BG	283,589	803	4,010	2.5	869.1	869.1	869.1	0.0
BH	285,278	1,130	6,942	1.5	869.8	869.8	869.8	0.0

[1]Feet above mouth

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

SUGAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SUGAR CREEK (CONTINUED)								
BI	286,387[1]	951	7,500	1.3	870.2	870.2	870.2	0.0
BJ	287,232[1]	780	10,456	1.0	870.5	870.5	870.5	0.0
WEST FORK BILLS BRANCH								
A	582[2]	13	39	4.4	799.4	799.4	799.4	0.0
B	1,188[2]	92	208	0.8	808.9	808.9	808.9	0.0
C	2,103[2]	38	43	3.9	815.6	815.6	815.6	0.0

[1]Feet above mouth

[2]Feet above confluence with Bills Branch

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

FLOODWAY DATA

SUGAR CREEK - WEST FORK BILL BRANCH

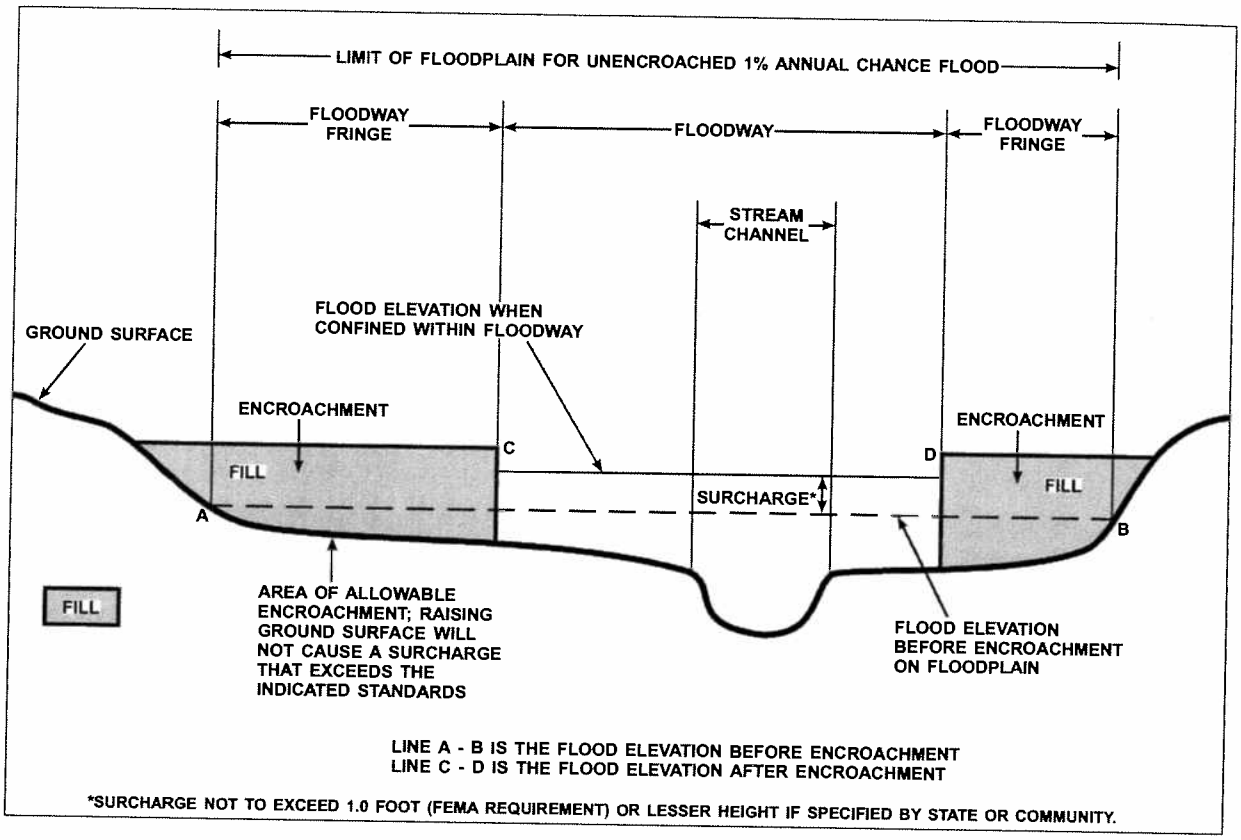

Figure 1 - Floodway Schematic

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs or base flood depths are shown within this zone.

Zone AE

Zone AE is the flood insurance risk zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance risk zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by levees. No BFEs or base flood depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance risk zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use the zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Hancock County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps, where applicable. Historical data relating to the maps prepared for each community are presented in Table 7.

7.0 OTHER STUDIES

Previous FIS reports have been prepared for Hamilton County, Indiana and Incorporated Areas (FEMA 2003), Henry County, Indiana and Incorporated Areas (FEMA 1987b), Marion County, Indiana and Incorporated Areas (FEMA Marion, 2005), Rush County, Indiana (Unincorporated Areas) (FEMA 1982b), and Shelby County, Indiana (Unincorporated Areas) (FEMA 1982c).

This report either supersedes or is compatible with all previous studies on streams studied in this report and should be considered authoritative for purposes of the NFIP.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDAY MAP REVISION DATE	FIRM EFFECTIVE DATE	FIRM REVISION DATE
Cumberland, Town of	None	None	None	None
Fortville, Town of	July 11, 1975	None	None	None
Greenfield, City of	November 23, 1973	February 3, 1978 September 24, 1976	November 4, 1981	None
Hancock County (Unincorporated Areas)	July 1, 1977	None	October 15, 1982	None
McCordsville, Town of	July 1, 1977	None	October 15, 1982	None
New Palestine, Town of	November 7, 1975	None	None	None
Shirley, Town of	July 11, 1975	None	None	None
Spring Lake, Town of	February 1, 1974	May 28, 1976	April 3, 1984	None
Wilkinson, Town of	None	None	None	None

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN
AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting FEMA, Federal Insurance and Mitigation Division, 536 South Clark Street, Sixth Floor, Chicago, Illinois 60605.

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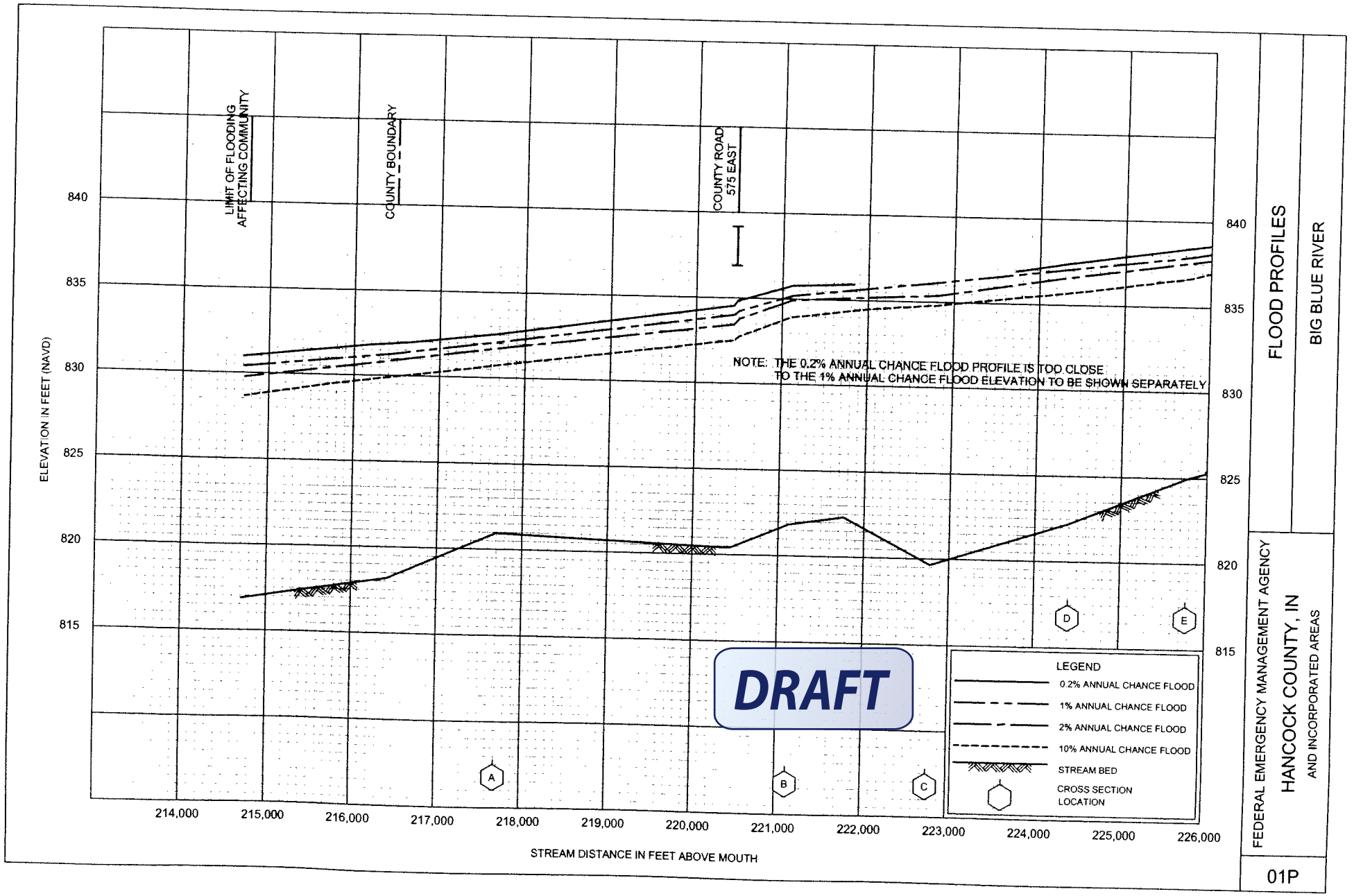
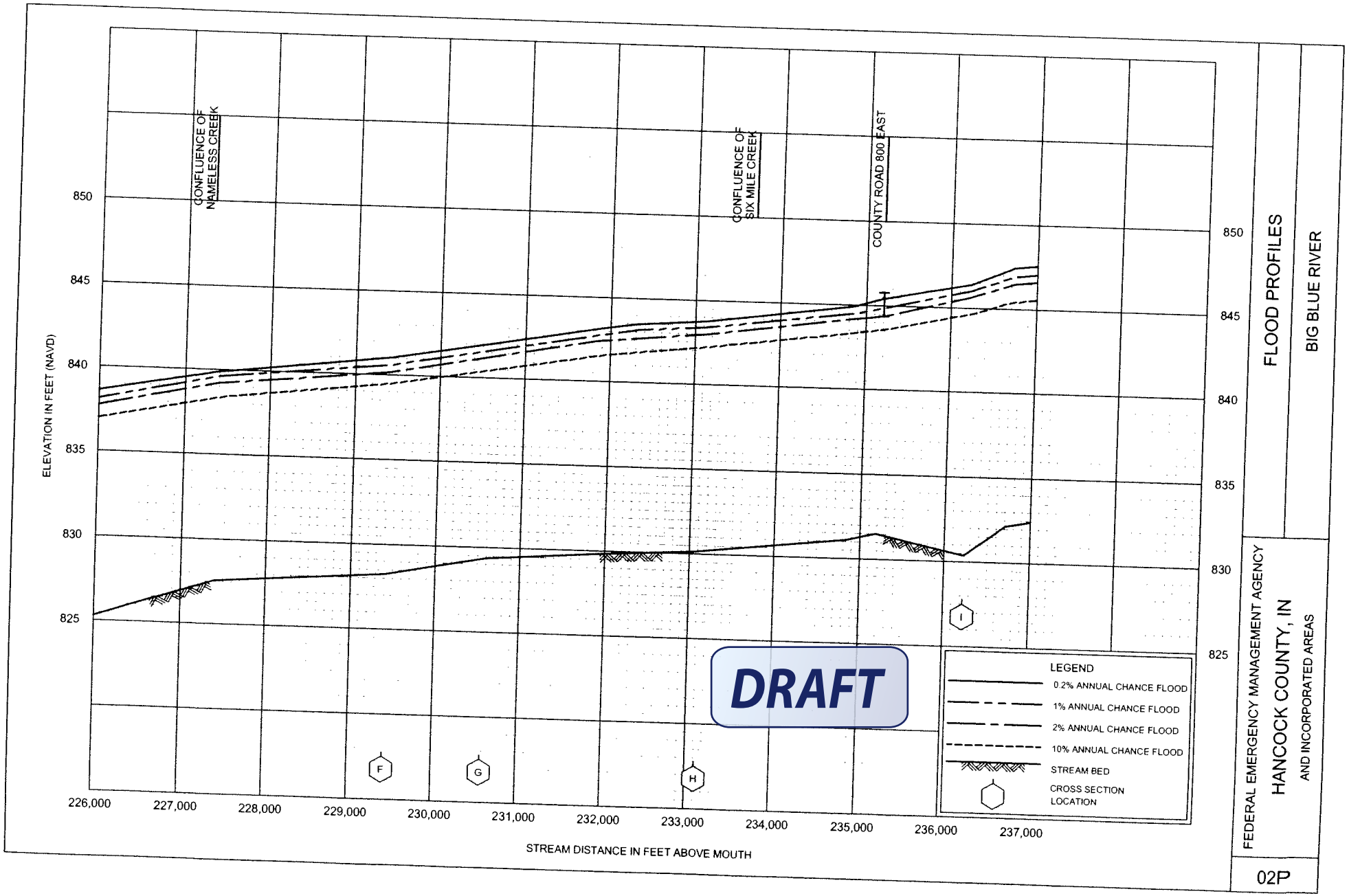
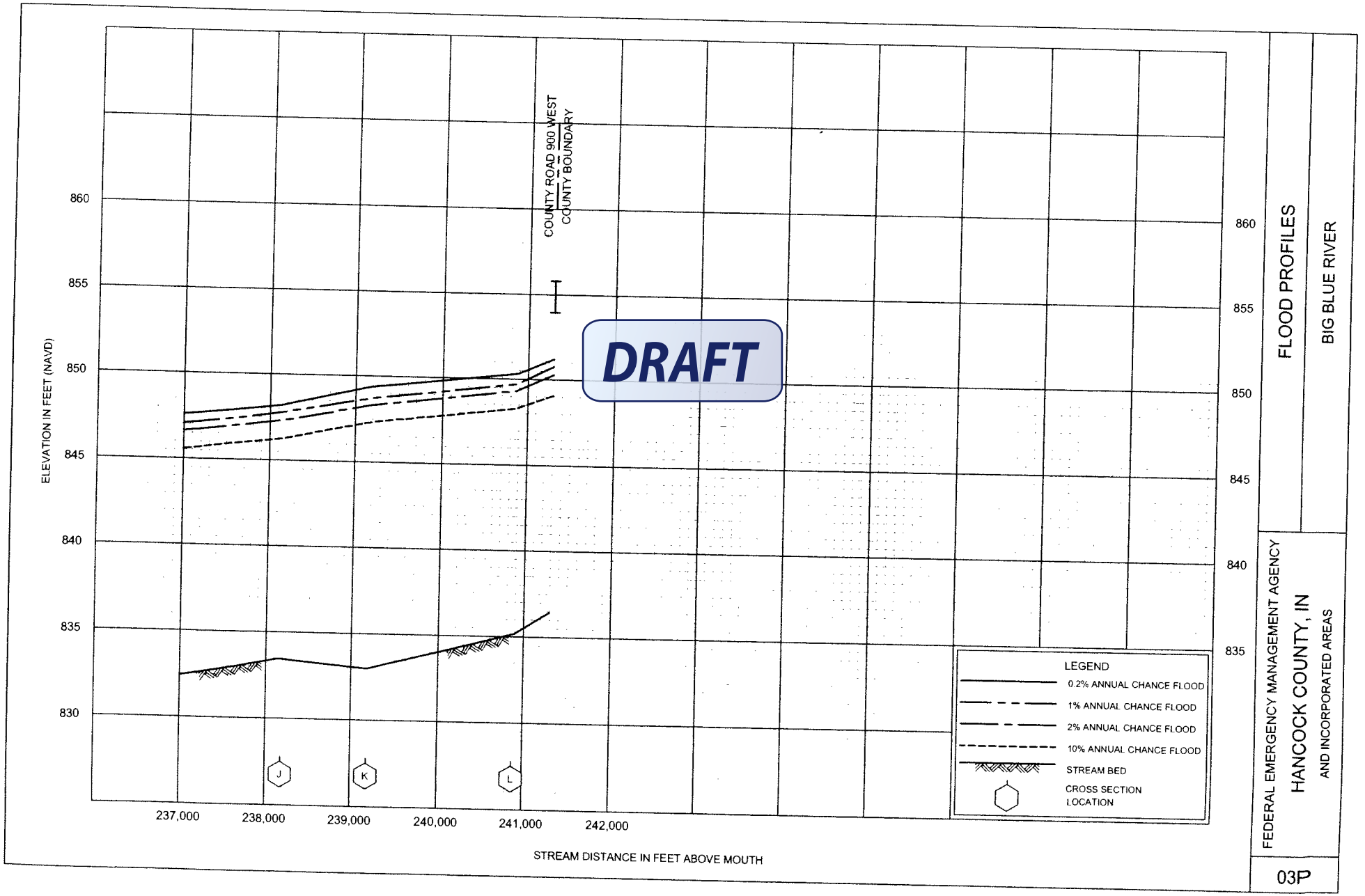
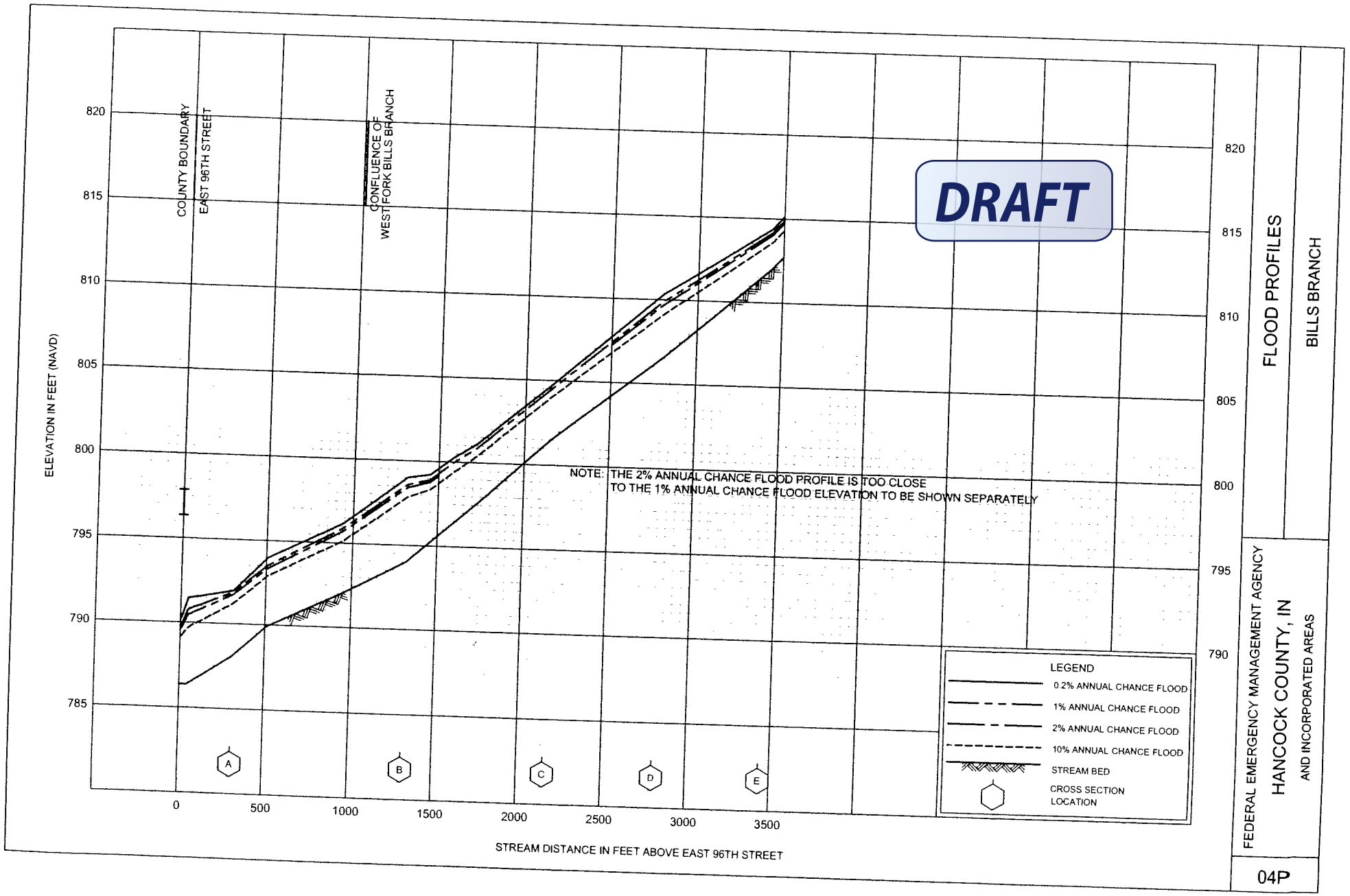
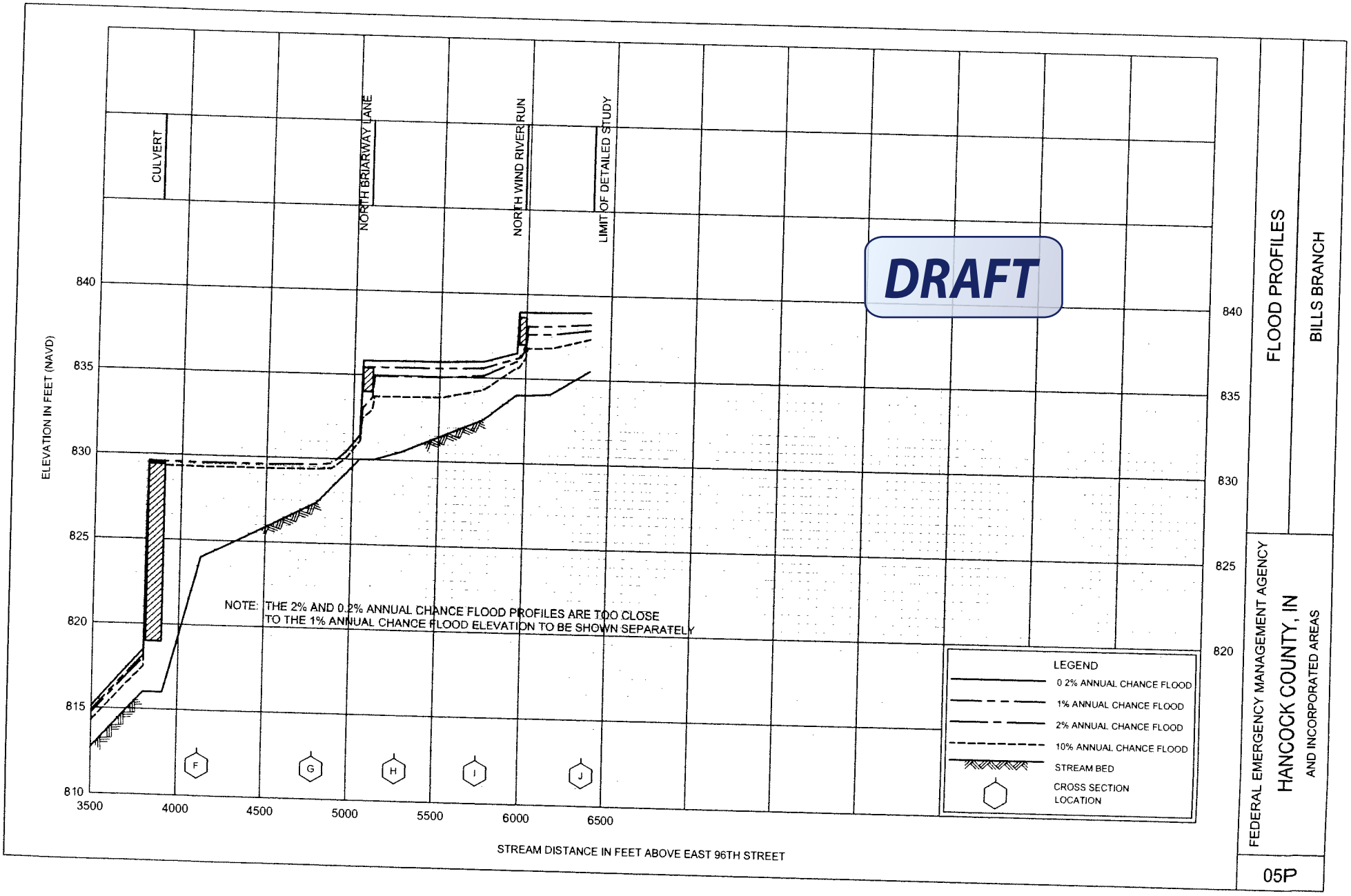
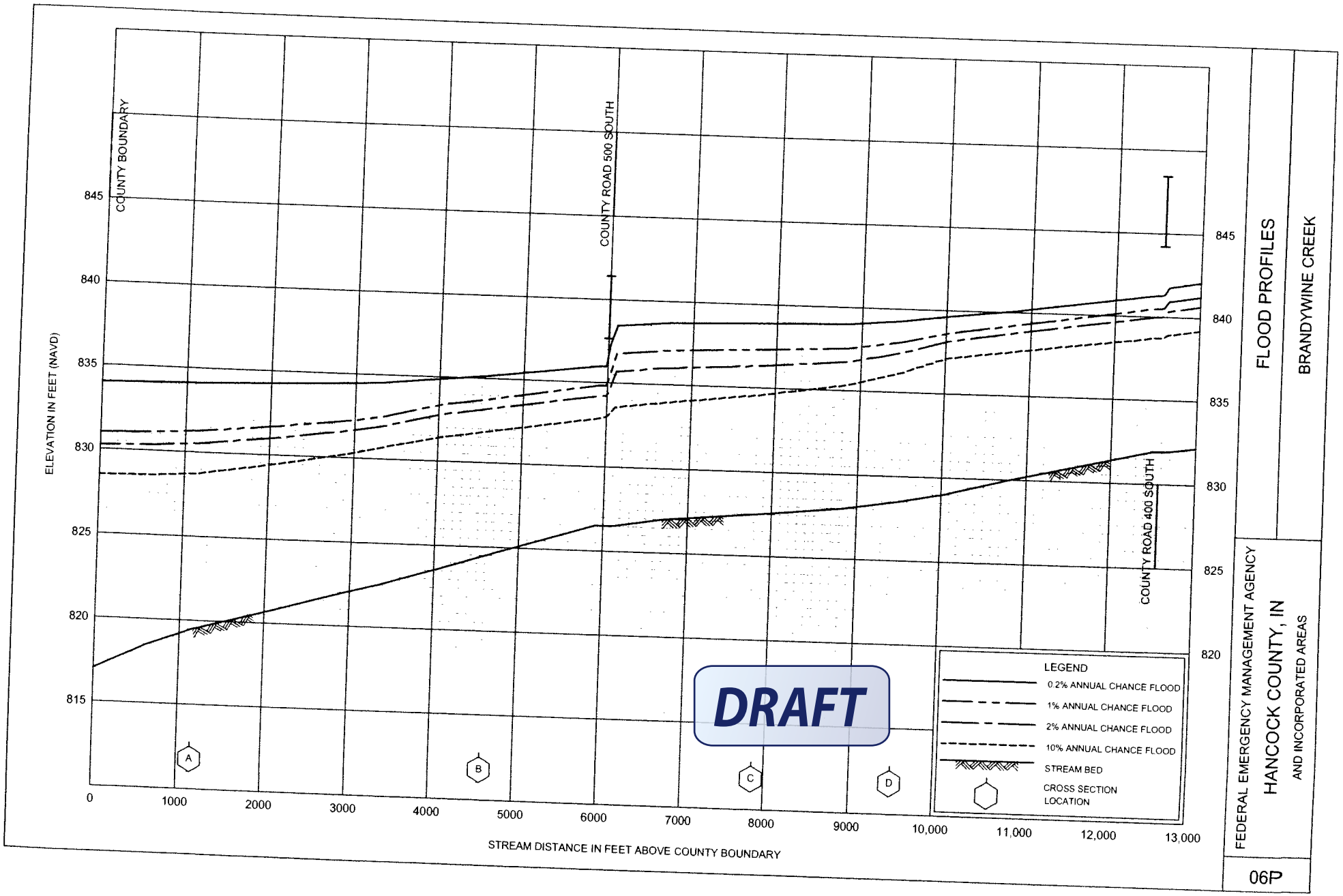

LIMIT OF FLOODING AFFECTING COMMUNITY
COUNTY BOUNDARY
COUNTY ROAD 575 EAST
NOTE: THE 0.2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY
DRAFT
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
A
B
C
D
E
ELEVATION IN FEET (NAVD)
840
835
830
825
820
815
214,000
215,000
216,000
217,000
218,000
219,000
220,000
221,000
222,000
223,000
224,000
225,000
226,000
STREAM DISTANCE IN FEET ABOVE MOUTH
FLOOD PROFILES
BIG BLUE RIVER
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
01P

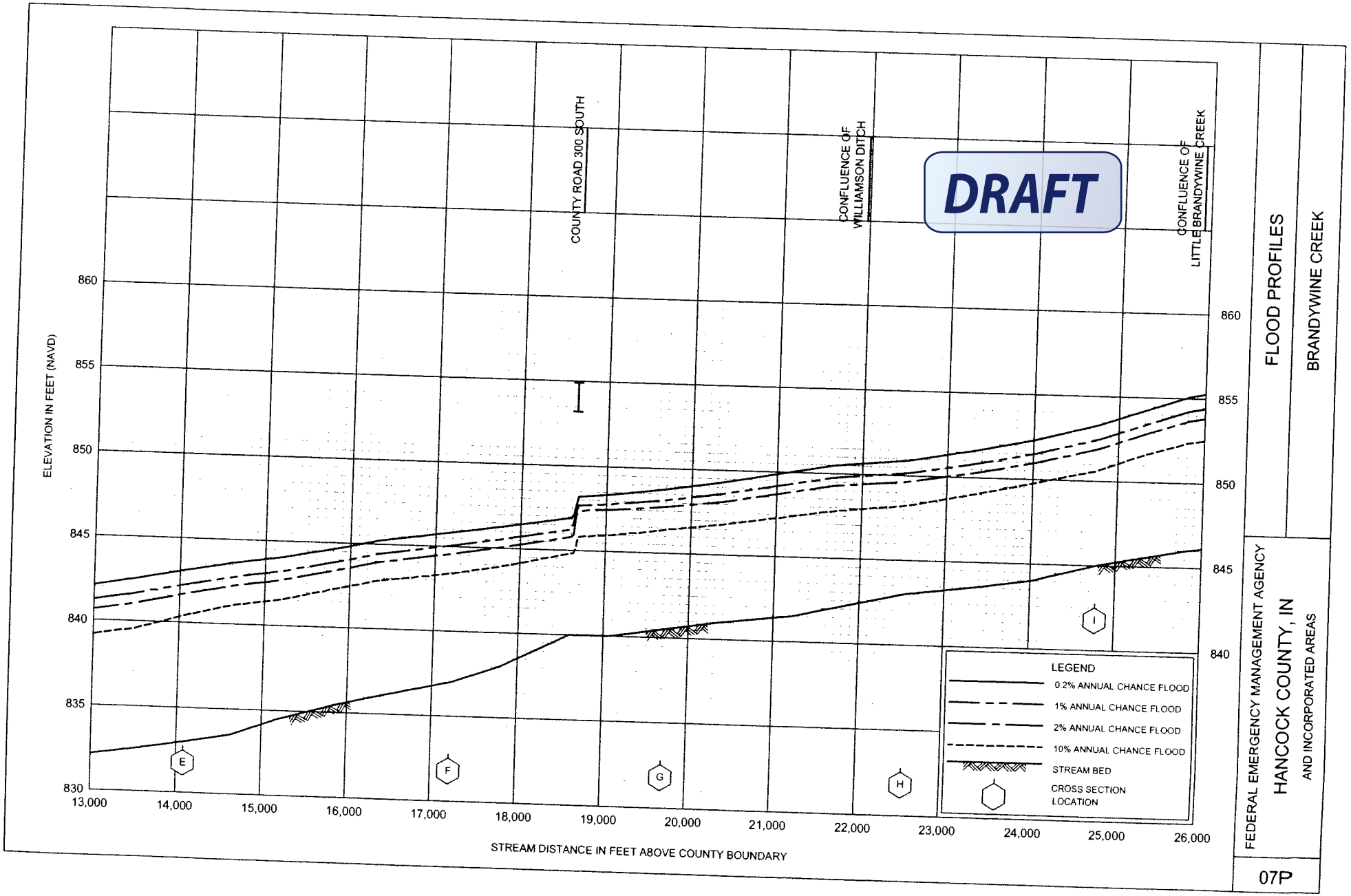

CONFLUENCE OF NAMELESS CREEK
CONFLUENCE OF SIX MILE CREEK
COUNTY ROAD 800 EAST
ELEVATION IN FEET (NAVD)
850
845
840
835
830
825
226,000
227,000
228,000
229,000
230,000
231,000
232,000
233,000
234,000
235,000
236,000
237,000
STREAM DISTANCE IN FEET ABOVE MOUTH
F
G
H
I
DRAFT
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BIG BLUE RIVER
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
02P


ELEVATION IN FEET (NAVD)
860
855
850
845
840
835
830
COUNTY ROAD 900 WEST
COUNTY BOUNDARY
DRAFT
J
K
L
237,000
238,000
239,000
240,000
241,000
242,000
STREAM DISTANCE IN FEET ABOVE MOUTH
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BIG BLUE RIVER
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
03P


DRAFT
COUNTY BOUNDARY
EAST 96TH STREET
CONFLUENCE OF
WEST FORK BILLS BRANCH
ELEVATION IN FEET (NAVD)
820
815
810
805
800
795
790
785
0
500
1000
1500
2000
2500
3000
3500
STREAM DISTANCE IN FEET ABOVE EAST 96TH STREET
A
B
C
D
E
NOTE: THE 2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE
TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION
LOCATION
FLOOD PROFILES
BILLS BRANCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
04P


CULVERT
NORTH BRIARWAY LANE
NORTH WIND RIVER RUN
LIMIT OF DETAILED STUDY
DRAFT
ELEVATION IN FEET (NAVD)
840
835
830
825
820
815
810
3500
4000
4500
5000
5500
6000
6500
F
G
H
I
J
NOTE: THE 2% AND 0.2% ANNUAL CHANCE FLOOD PROFILES ARE TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
STREAM DISTANCE IN FEET ABOVE EAST 96TH STREET
FLOOD PROFILES
BILLS BRANCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
05P


COUNTY BOUNDARY
COUNTY ROAD 500 SOUTH
COUNTY ROAD 400 SOUTH
ELEVATION IN FEET (NAVD)
845
840
835
830
825
820
815
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10,000
11,000
12,000
13,000
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
A
B
C
D
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
DRAFT
FLOOD PROFILES
BRANDYWINE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
06P



FLOOD PROFILES

BRANDYWINE CREEK

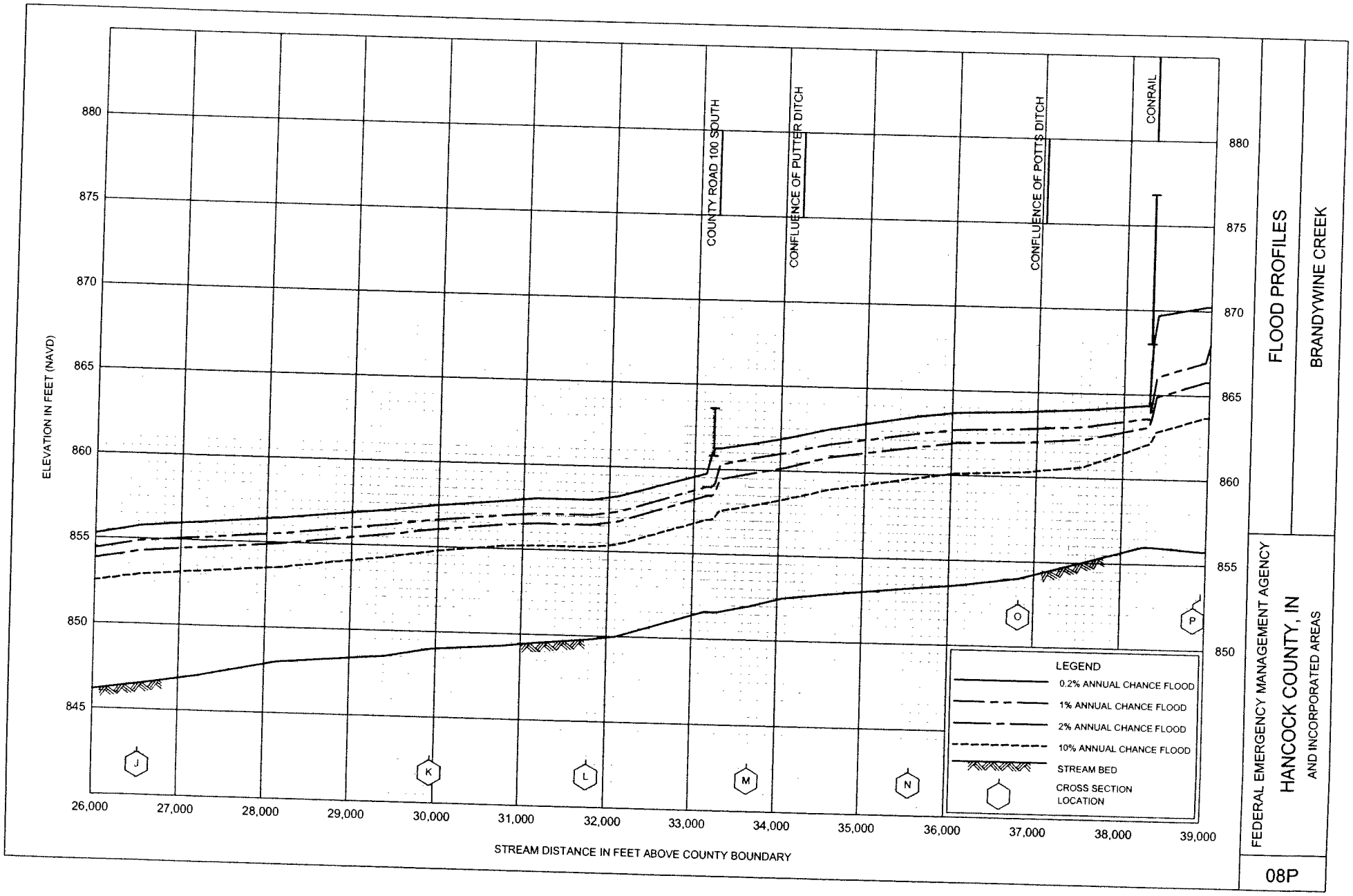
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

07P

DRAFT



FLOOD PROFILES

BRANDYWINE CREEK

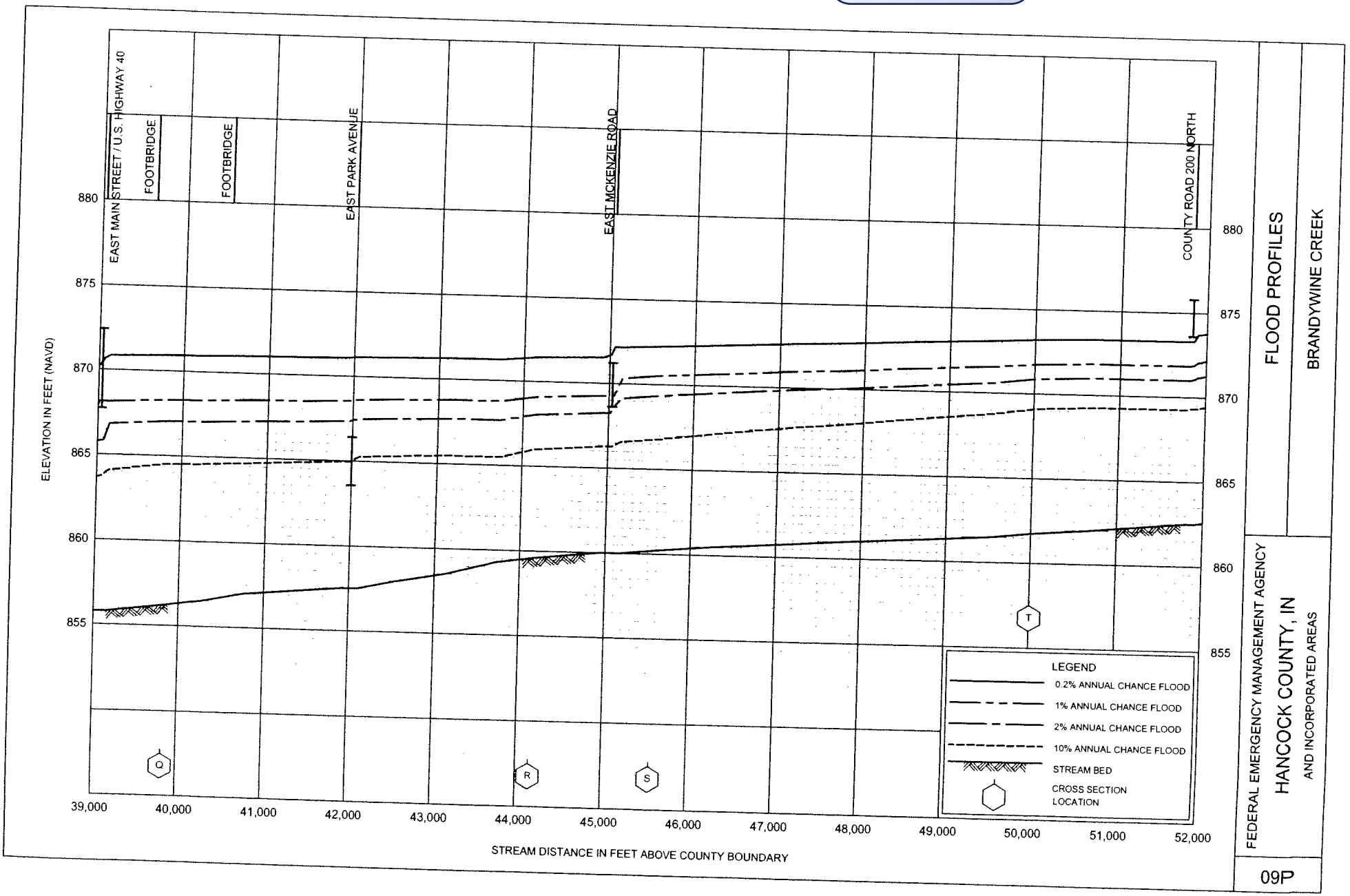
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

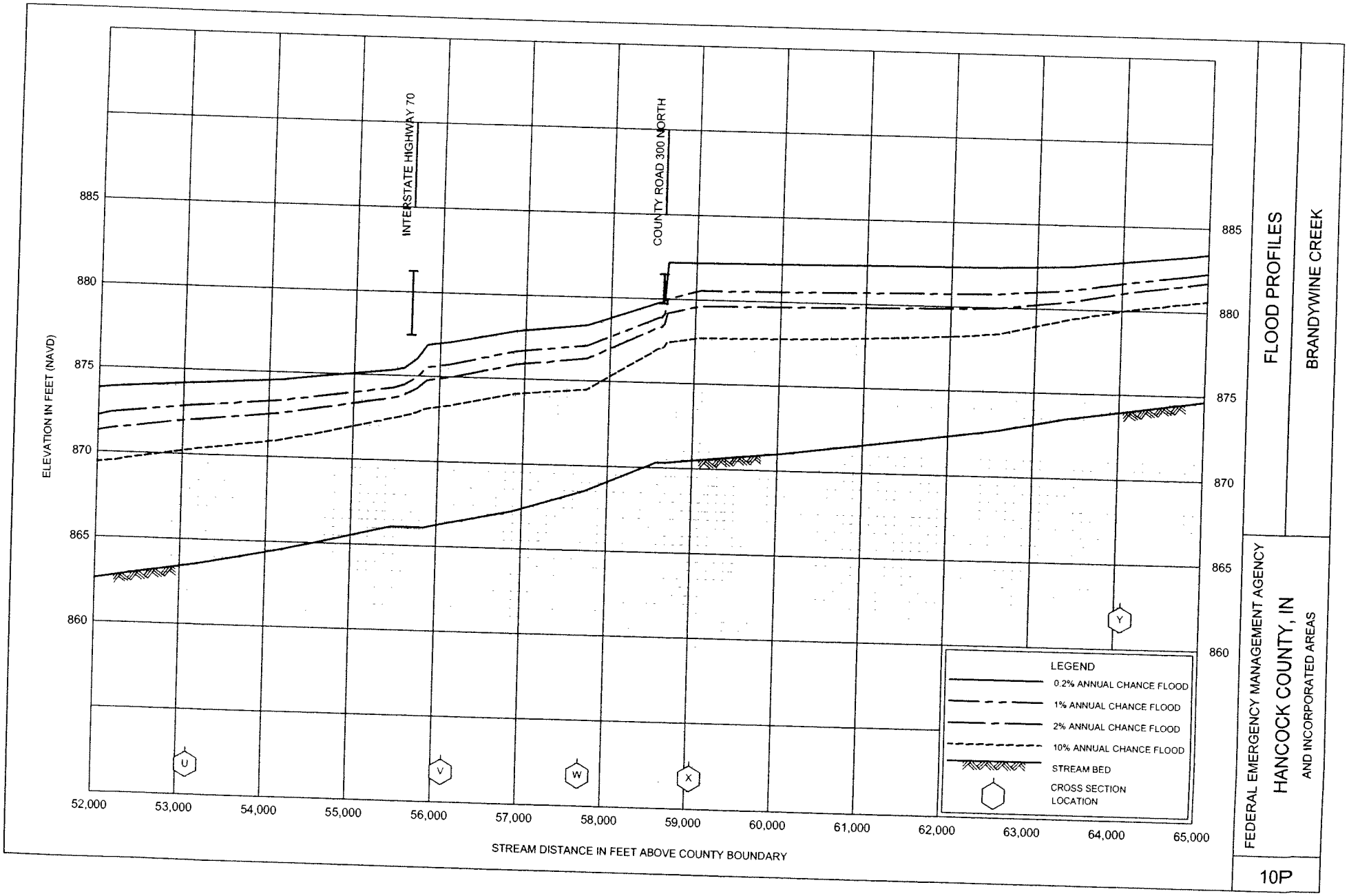
AND INCORPORATED AREAS

08P

DRAFT


EAST MAIN STREET / U.S. HIGHWAY 40
FOOTBRIDGE
FOOTBRIDGE
EAST PARK AVENUE
EAST MCKENZIE ROAD
COUNTY ROAD 200 NORTH
ELEVATION IN FEET (NAVD)
880
875
870
865
860
855
39,000
40,000
41,000
42,000
43,000
44,000
45,000
46,000
47,000
48,000
49,000
50,000
51,000
52,000
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
Q
R
S
T
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANDYWINE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
09P

DRAFT



FLOOD PROFILES

BRANDYWINE CREEK

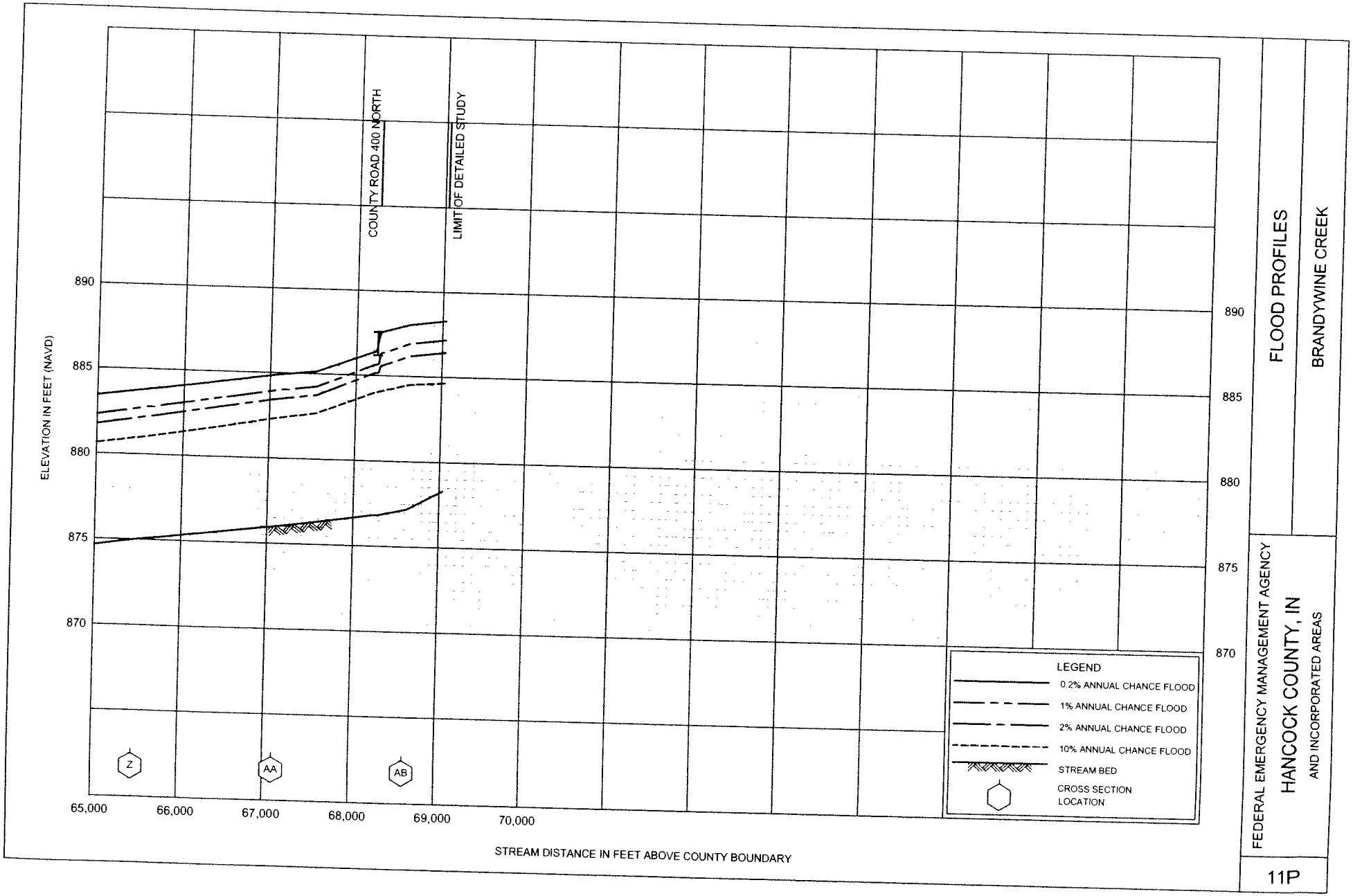
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

10P

DRAFT



FLOOD PROFILES

BRANDYWINE CREEK

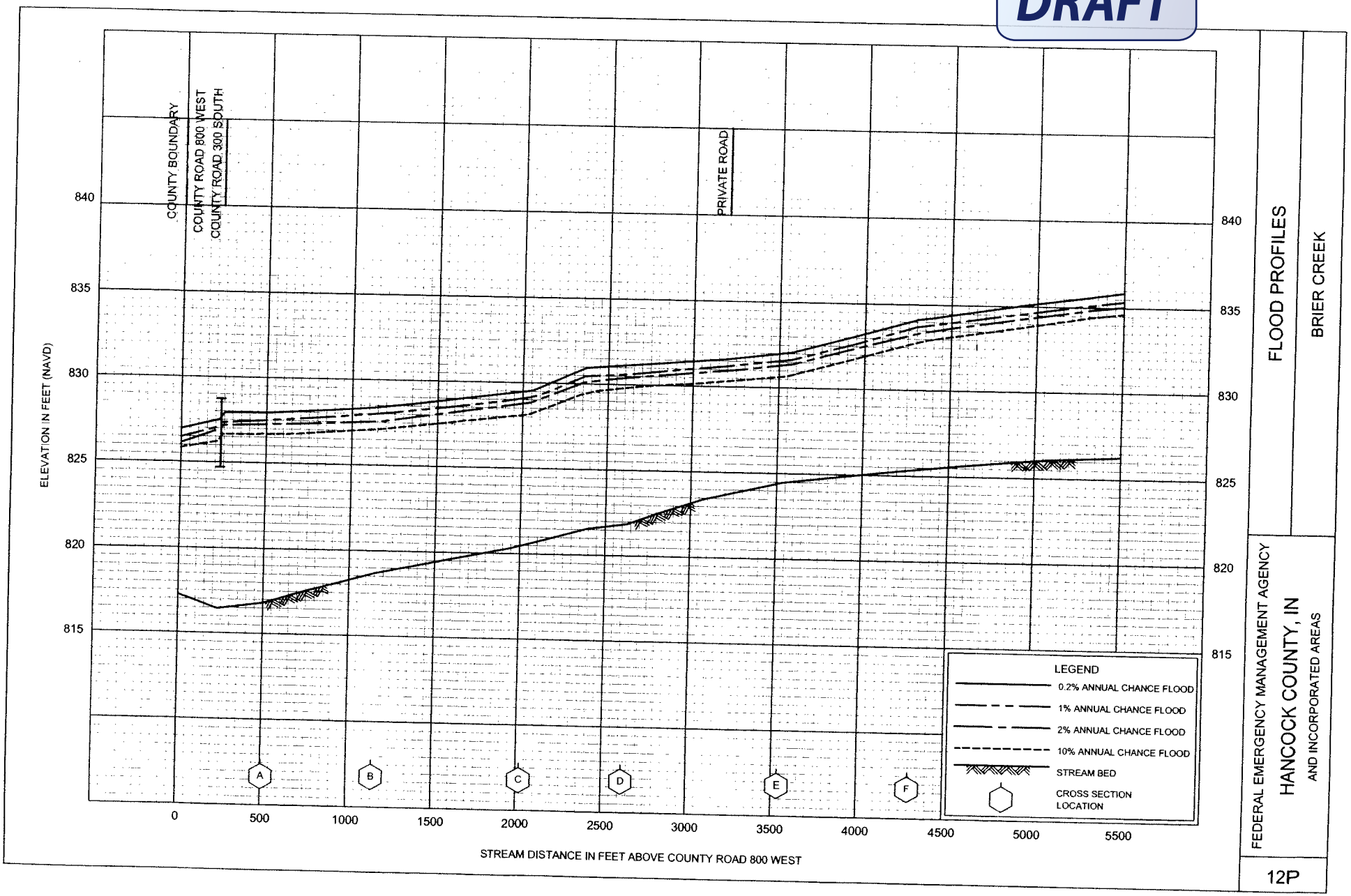
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

11P

DRAFT



FLOOD PROFILES

BRIER CREEK

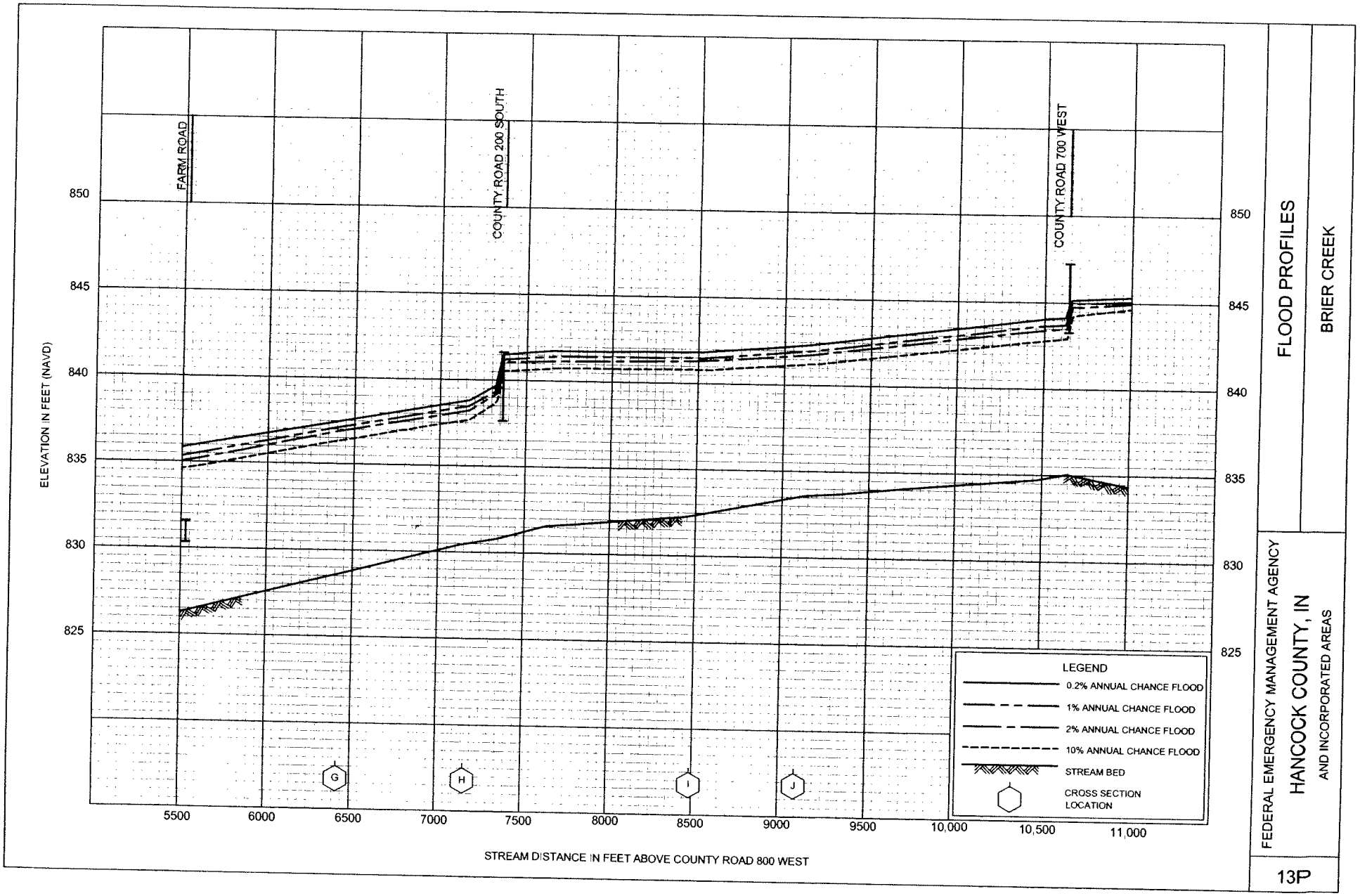
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

12P

DRAFT



FLOOD PROFILES

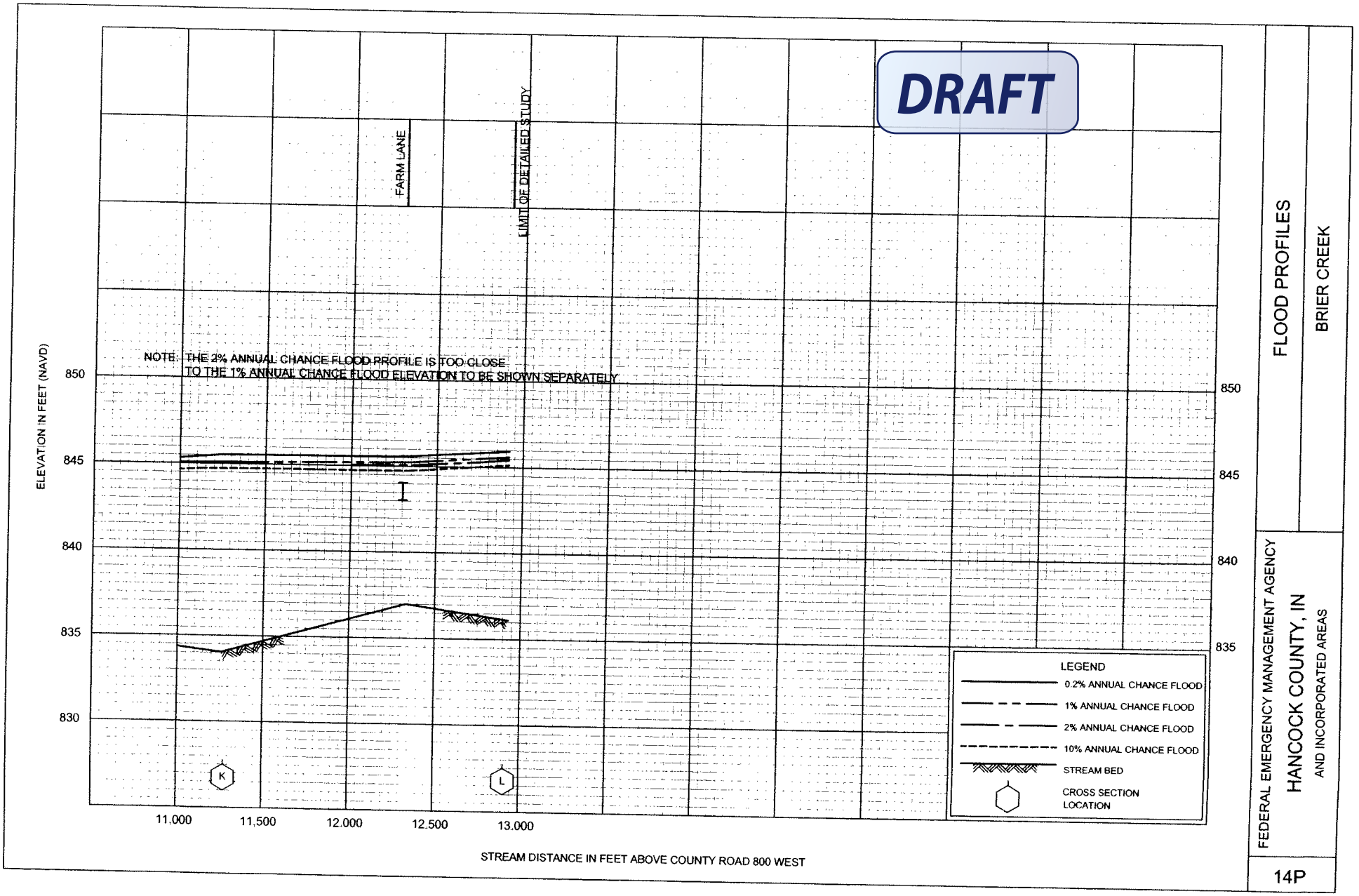
BRIER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

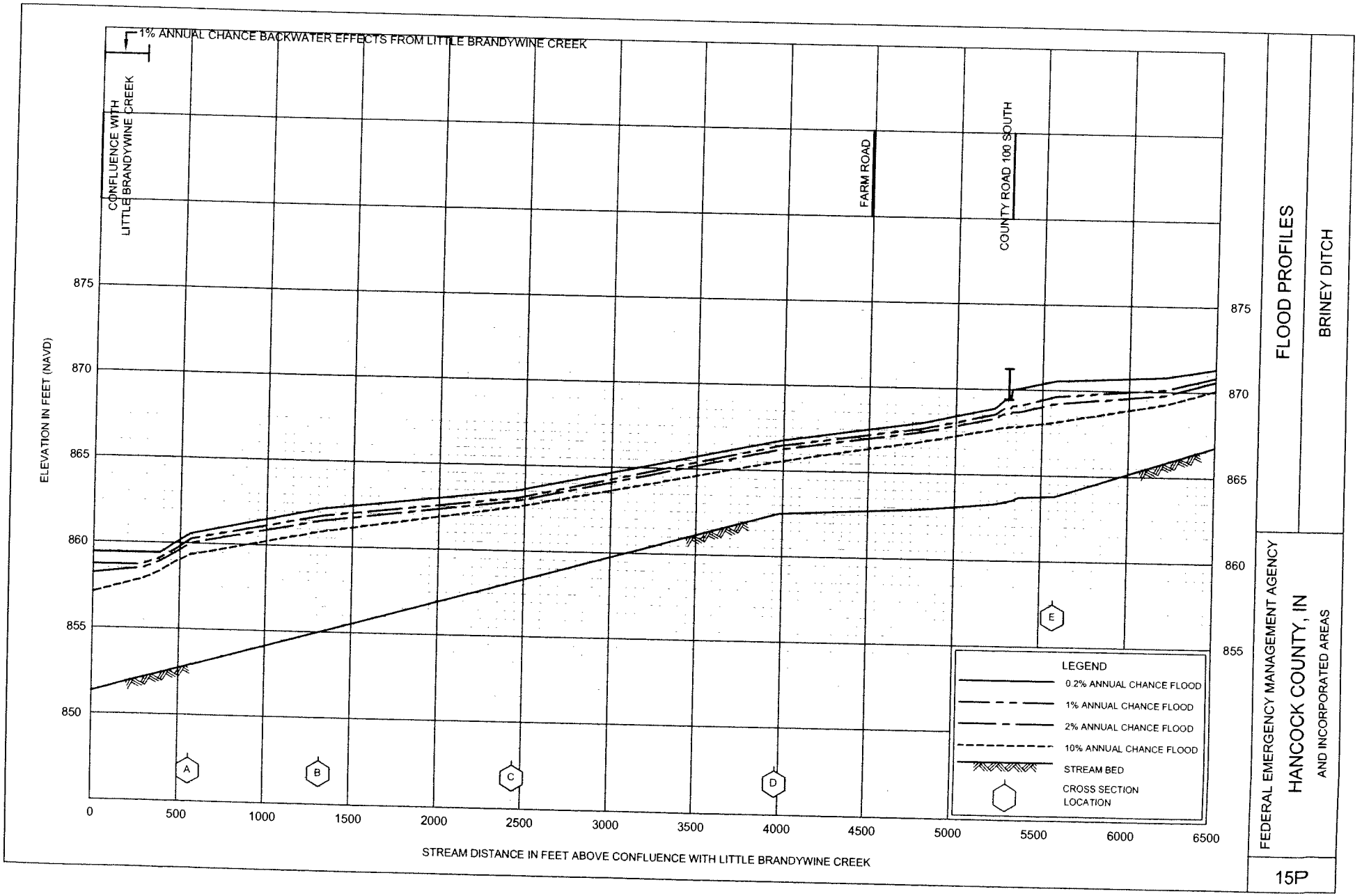
HANCOCK COUNTY, IN

AND INCORPORATED AREAS

13P


DRAFT
FARM LANE
LIMIT OF DETAILED STUDY
NOTE: THE 2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY
ELEVATION IN FEET (NAVD)
850
845
840
835
830
K
L
11,000
11,500
12,000
12,500
13,000
STREAM DISTANCE IN FEET ABOVE COUNTY ROAD 800 WEST
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRIER CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
14P

DRAFT



FLOOD PROFILES

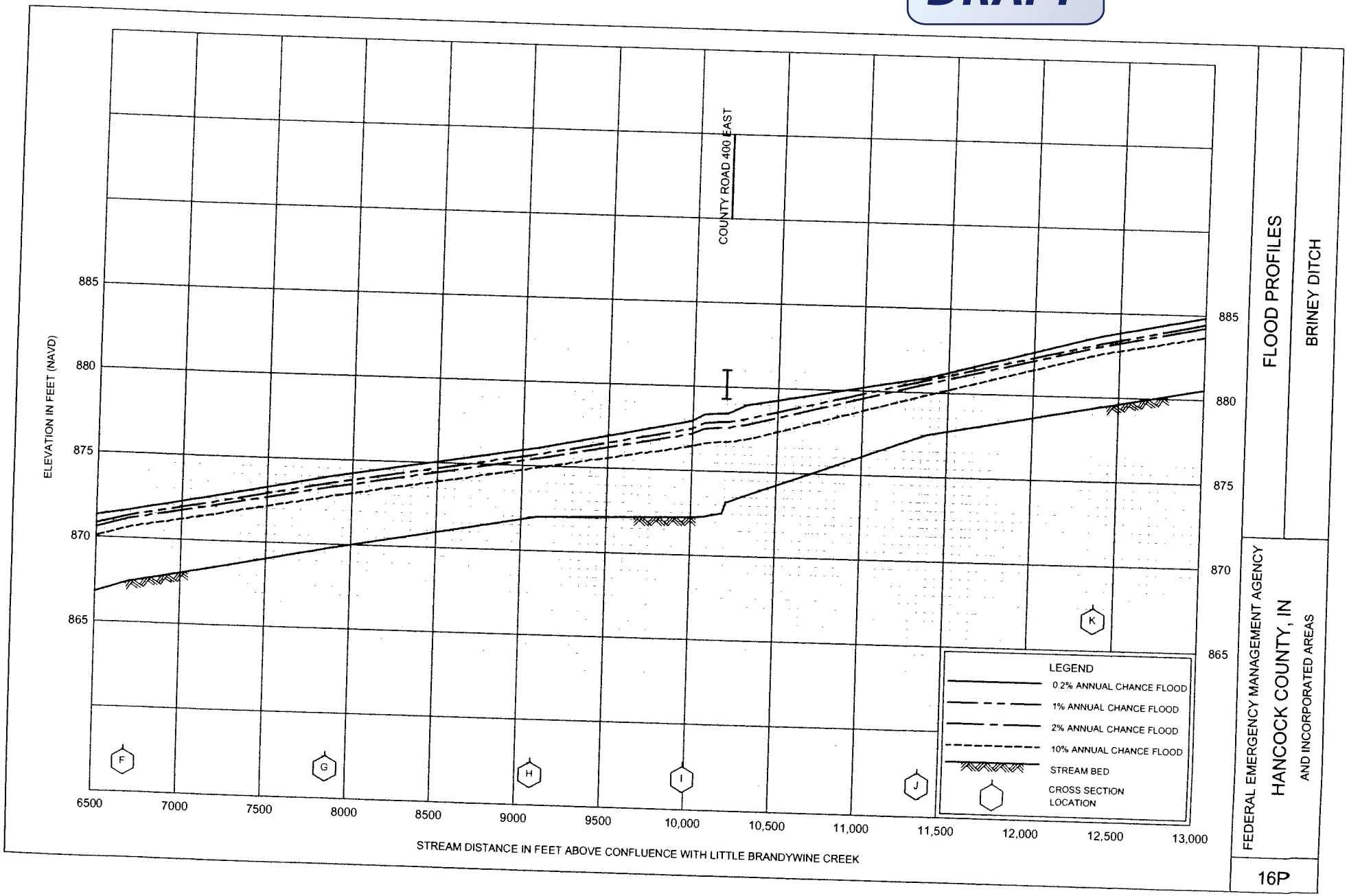
BRINEY DITCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

DRAFT



FLOOD PROFILES

BRINEY DITCH

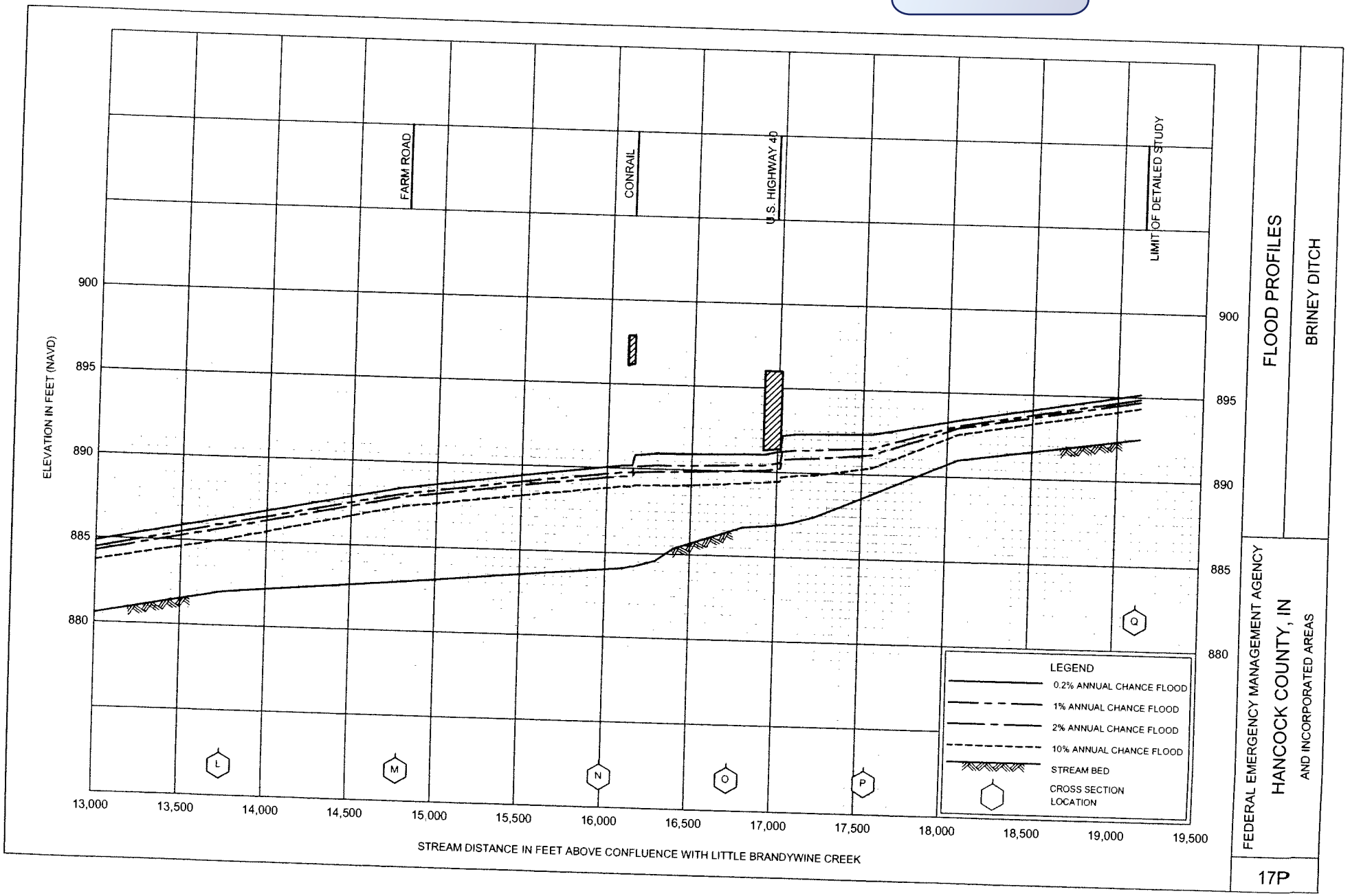
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

16P

DRAFT



FLOOD PROFILES

BRINEY DITCH

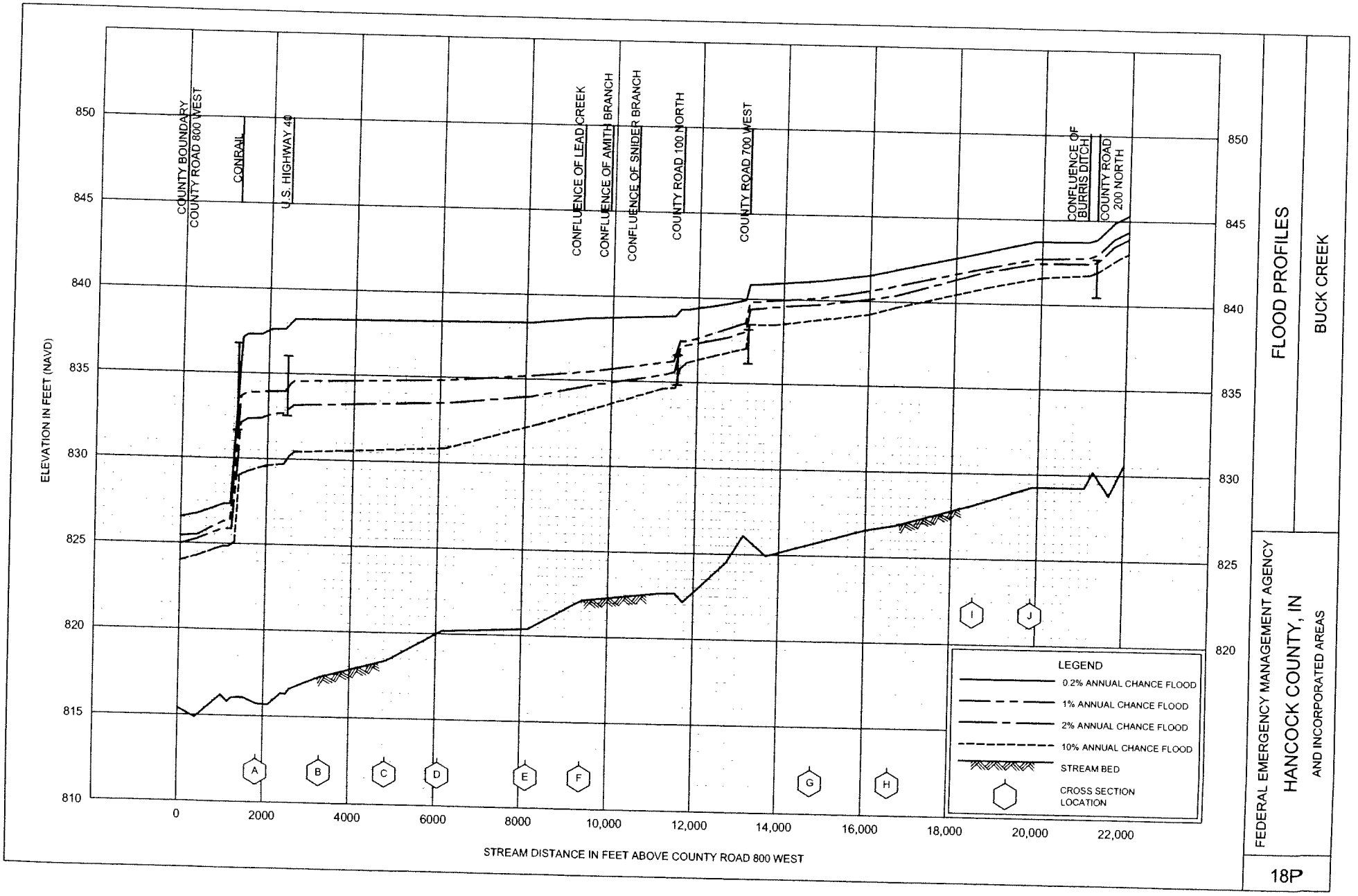
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

17P

DRAFT



FLOOD PROFILES

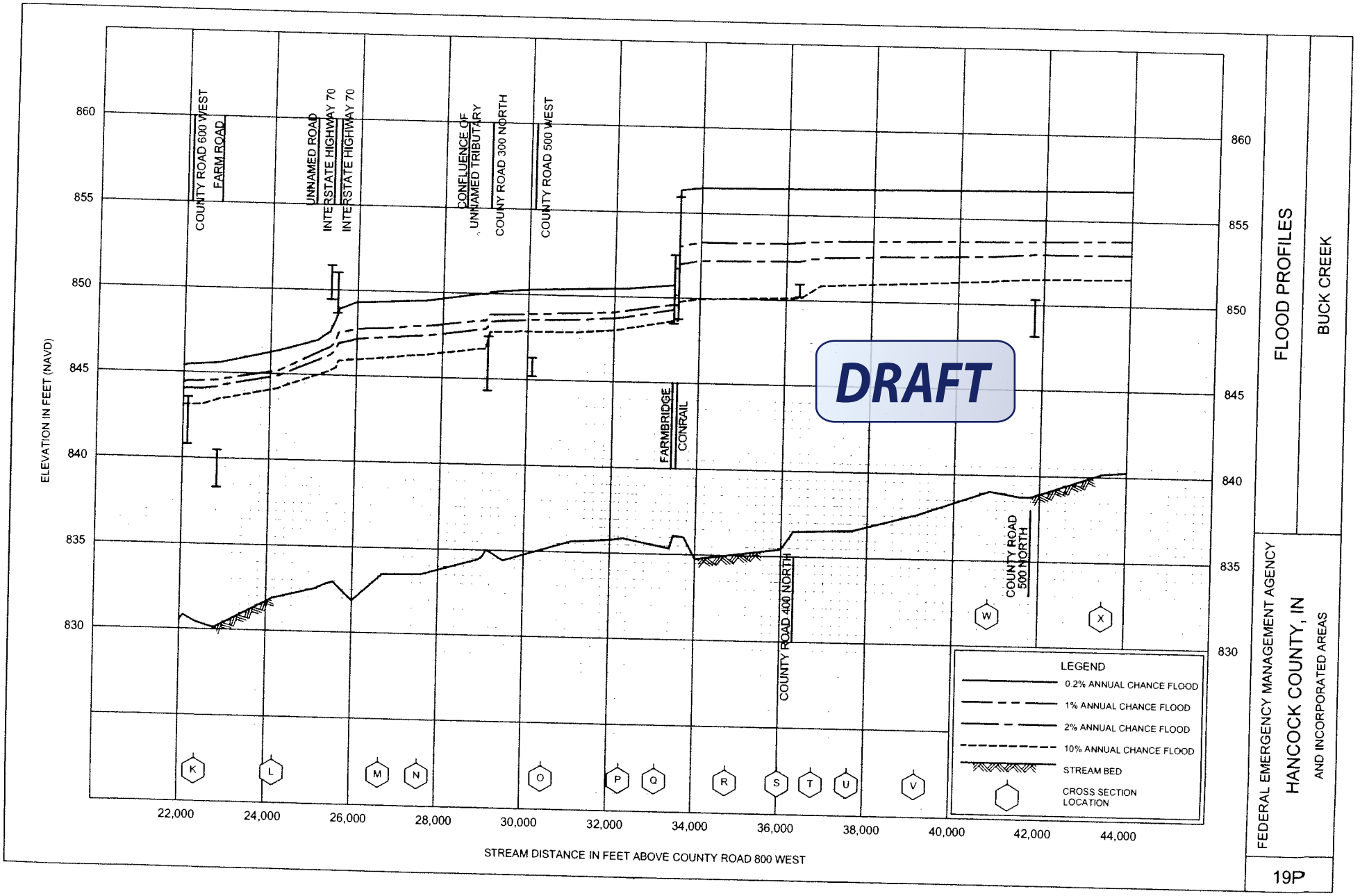
BUCK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

18P



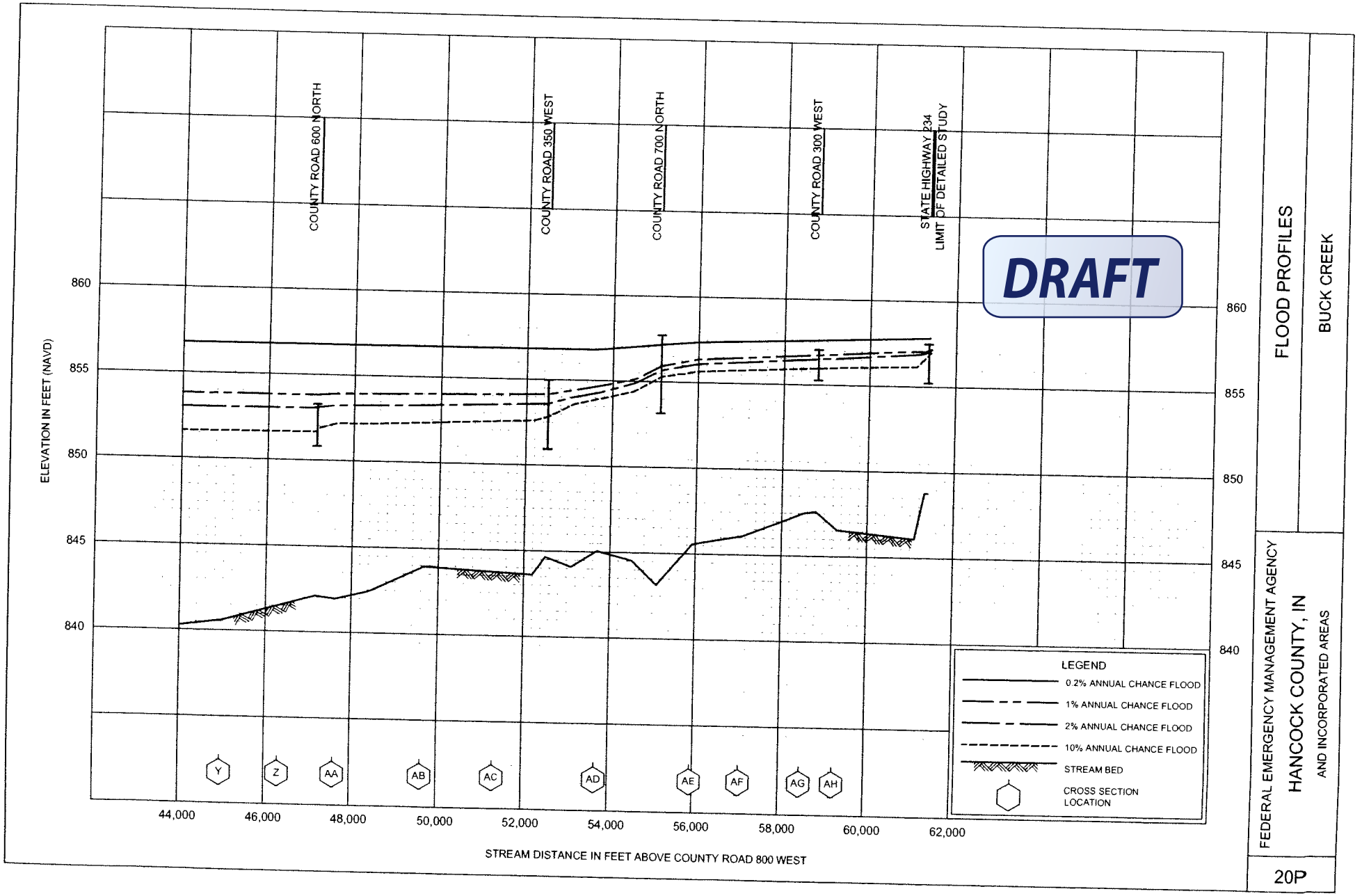
FLOOD PROFILES

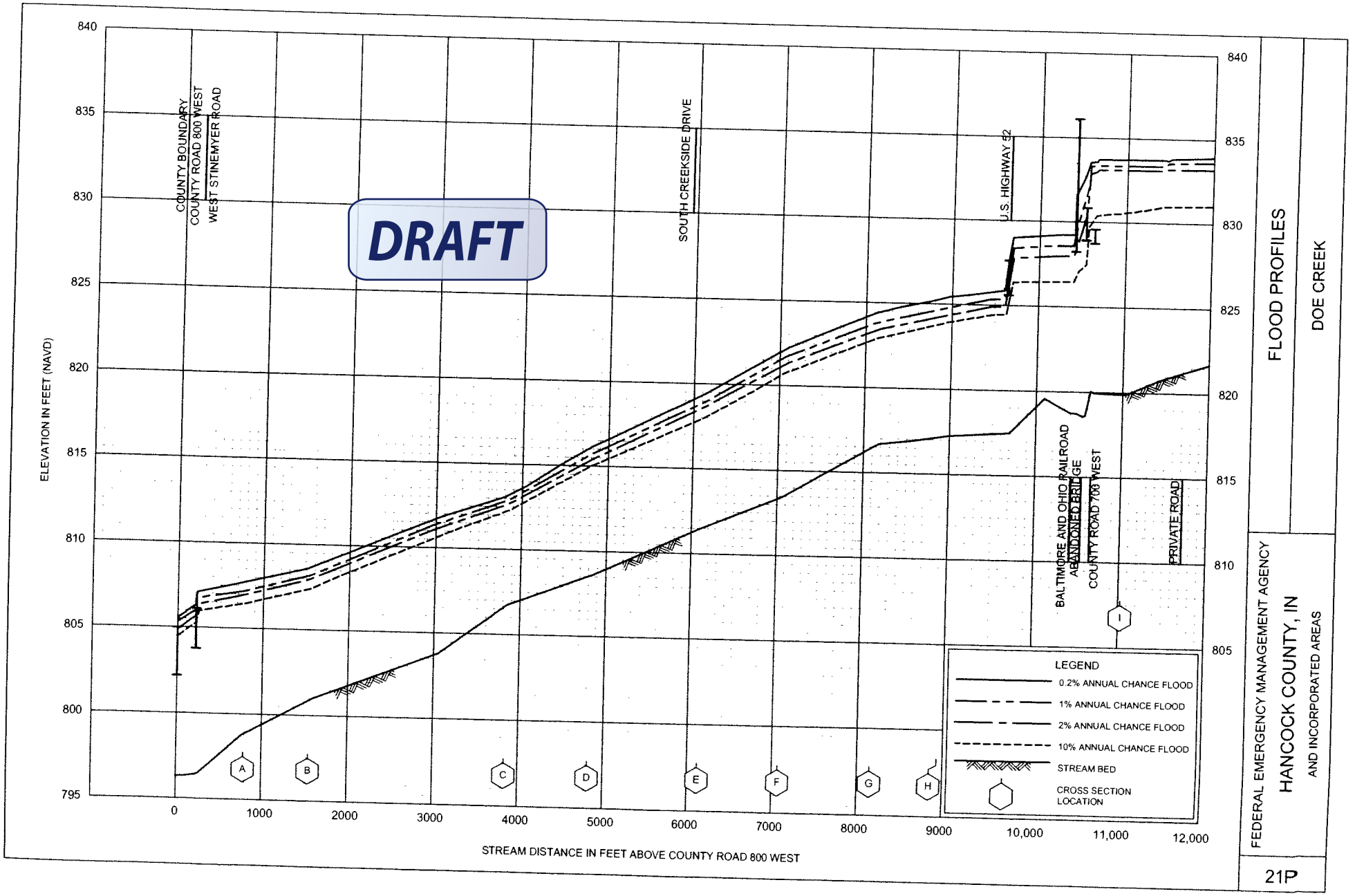
BUCK CREEK

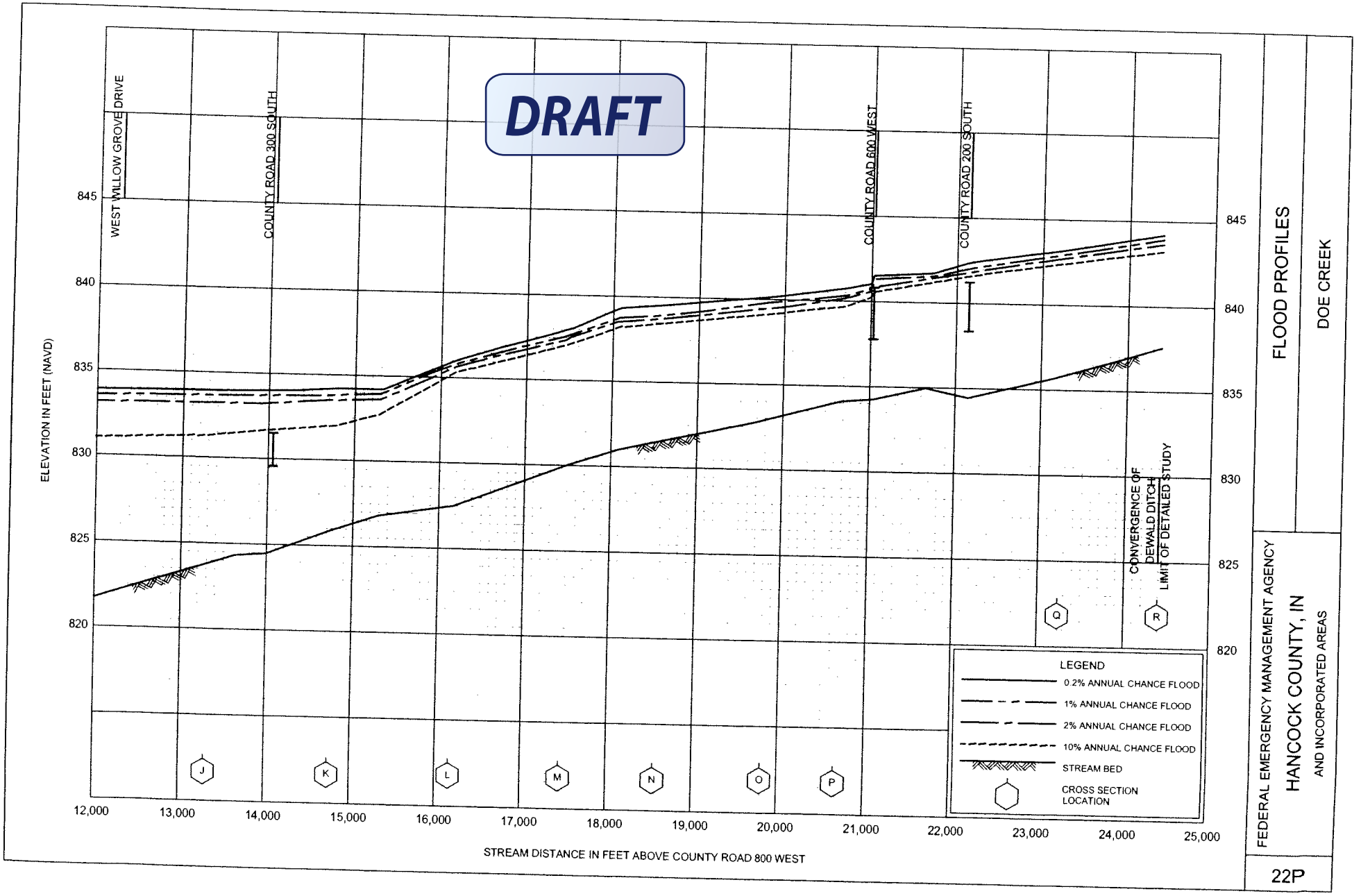
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

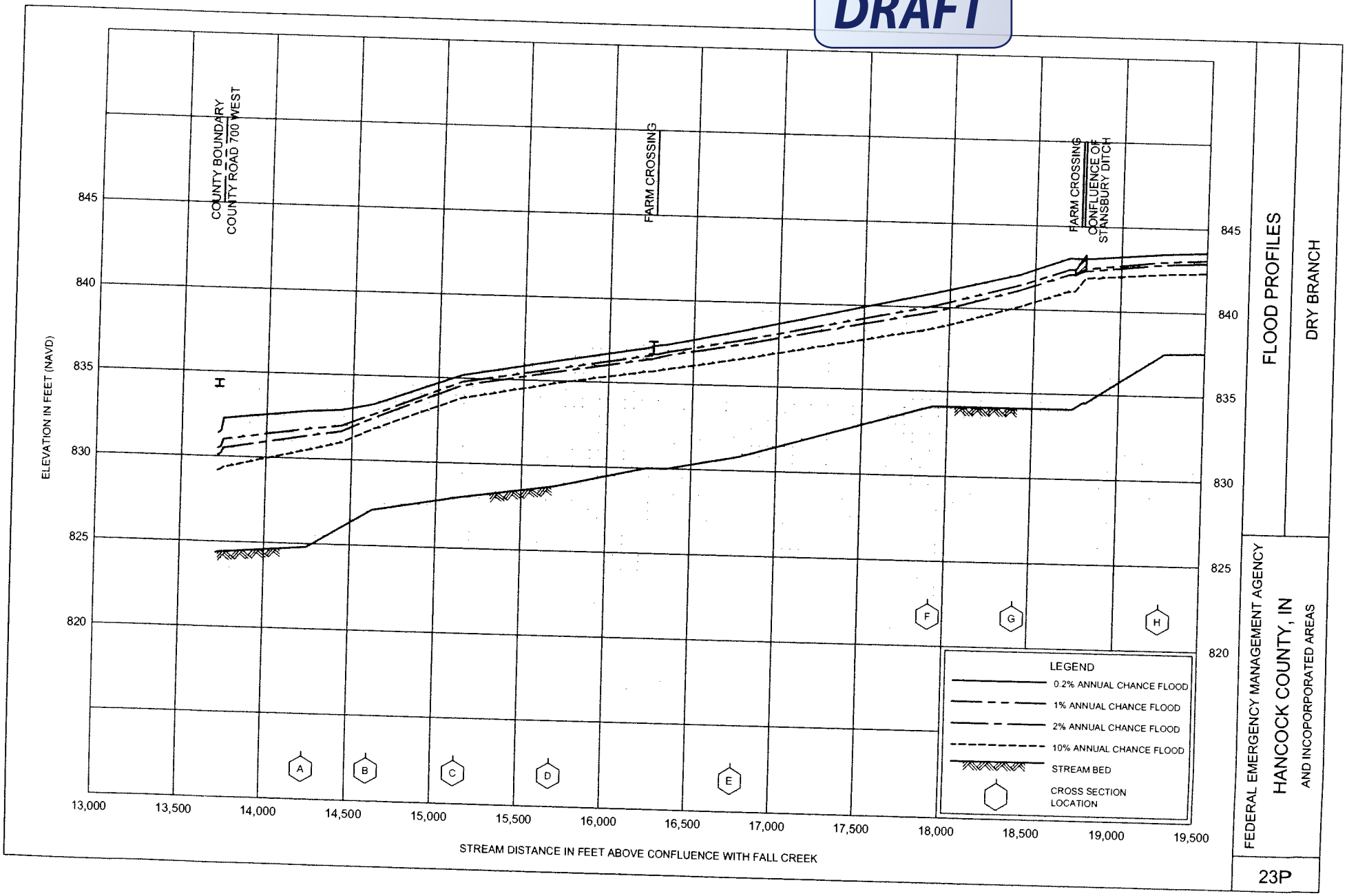
AND INCORPORATED AREAS


COUNTY ROAD 600 NORTH
COUNTY ROAD 350 WEST
COUNTY ROAD 700 NORTH
COUNTY ROAD 300 WEST
STATE HIGHWAY 234
LIMIT OF DETAILED STUDY
DRAFT
ELEVATION IN FEET (NAVD)
860
855
850
845
840
Y
Z
AA
AB
AC
AD
AE
AF
AG
AH
44,000
46,000
48,000
50,000
52,000
54,000
56,000
58,000
60,000
62,000
STREAM DISTANCE IN FEET ABOVE COUNTY ROAD 800 WEST
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BUCK CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
20P


DRAFT
ELEVATION IN FEET (NAVD)
840
835
830
825
820
815
810
805
800
795
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10,000
11,000
12,000
STREAM DISTANCE IN FEET ABOVE COUNTY ROAD 800 WEST
COUNTY BOUNDARY
COUNTY ROAD 800 WEST
WEST STINEMYER ROAD
SOUTH CREEKSIDE DRIVE
U.S. HIGHWAY 52
BALTIMORE AND OHIO RAILROAD
ABANDONED BRIDGE
COUNTY ROAD 700 WEST
PRIVATE ROAD
A
B
C
D
E
F
G
H
I
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
DOE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
21P


DRAFT
WEST WILLOW GROVE DRIVE
COUNTY ROAD 300 SOUTH
COUNTY ROAD 600 WEST
COUNTY ROAD 200 SOUTH
CONVERGENCE OF DEWALD DITCH
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
845
840
835
830
825
820
12,000
13,000
14,000
15,000
16,000
17,000
18,000
19,000
20,000
21,000
22,000
23,000
24,000
25,000
STREAM DISTANCE IN FEET ABOVE COUNTY ROAD 800 WEST
J
K
L
M
N
O
P
Q
R
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
DOE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
22P

DRAFT



FLOOD PROFILES

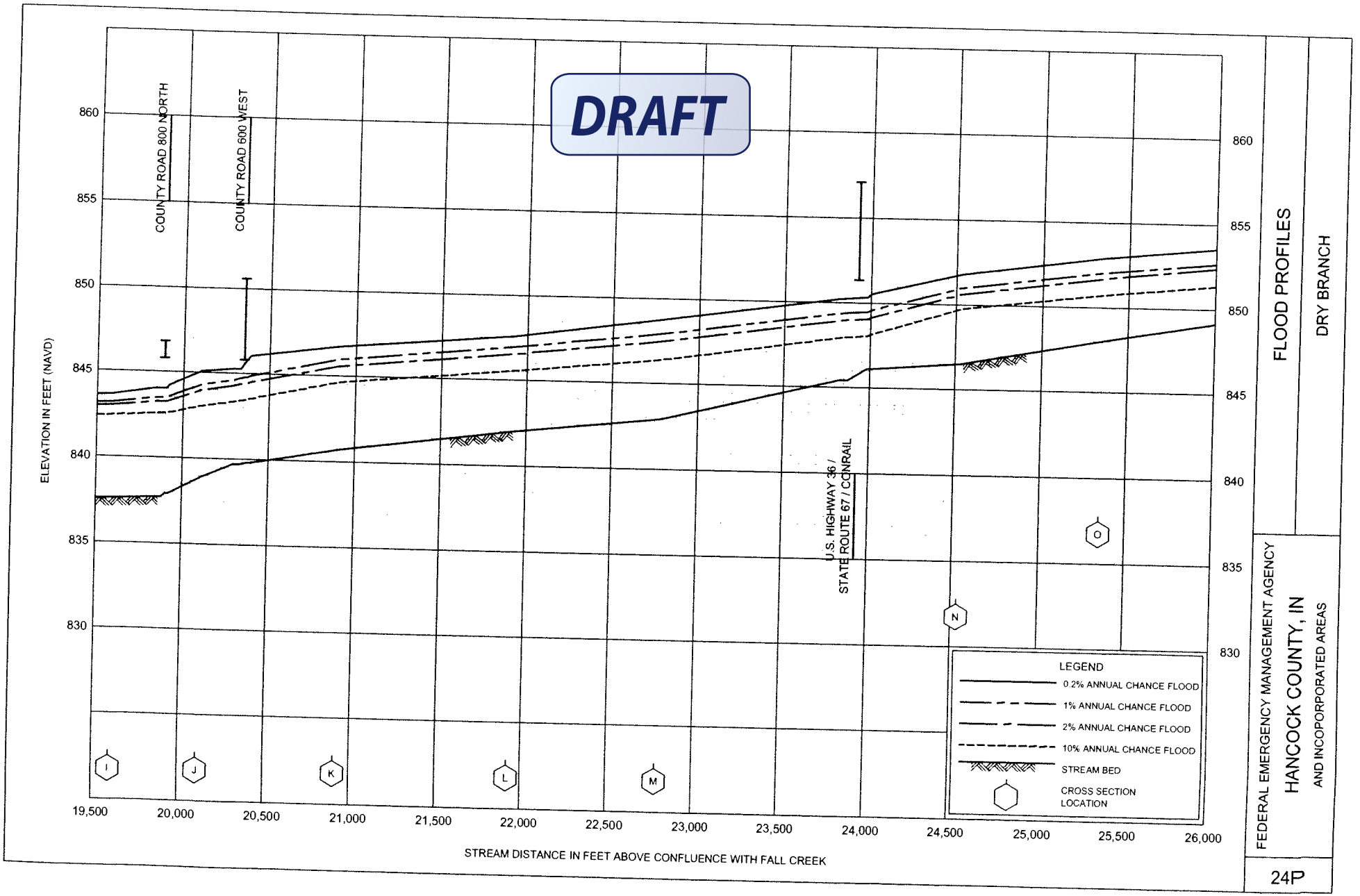
DRY BRANCH

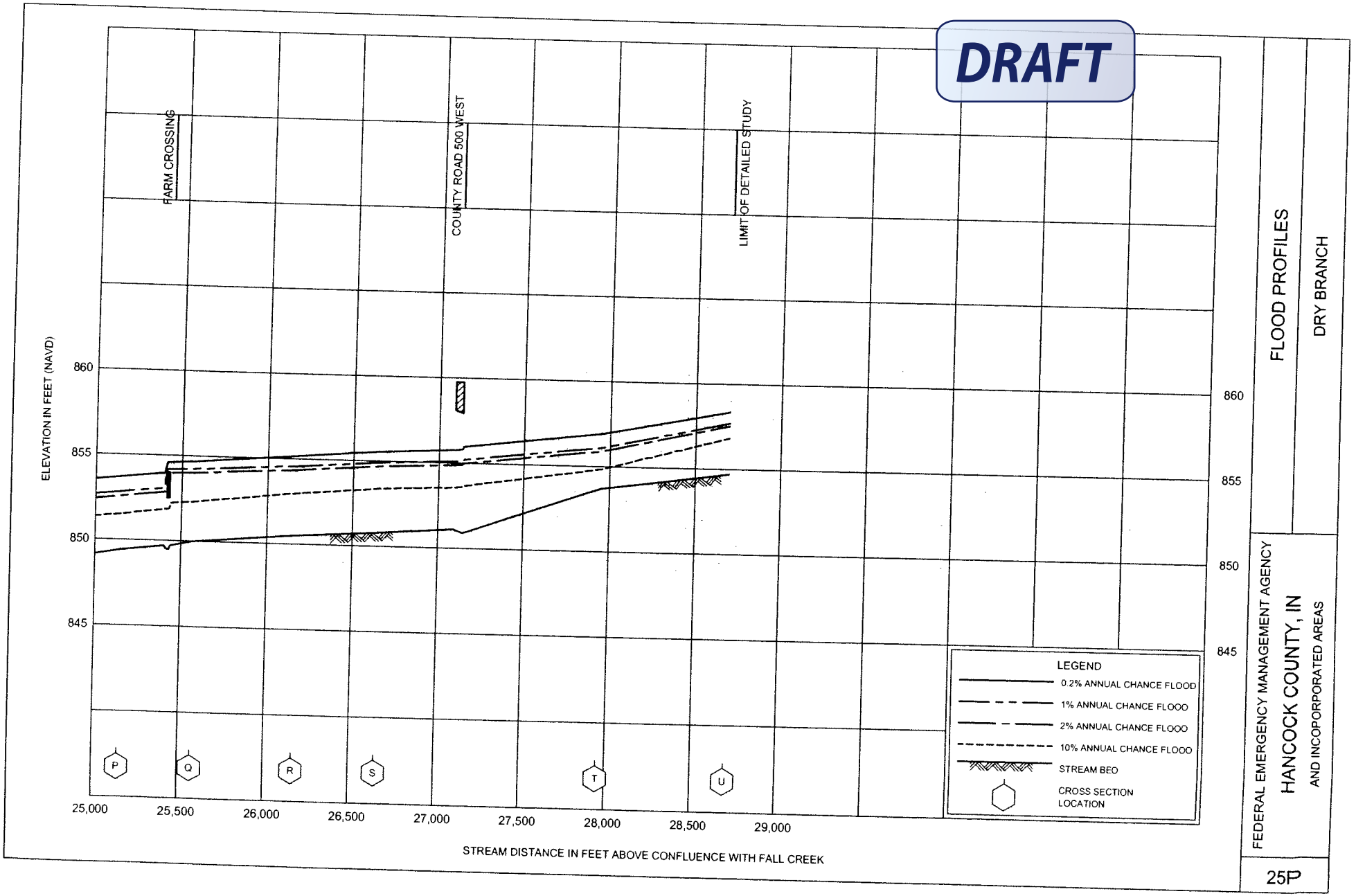
FEDERAL EMERGENCY MANAGEMENT AGENCY

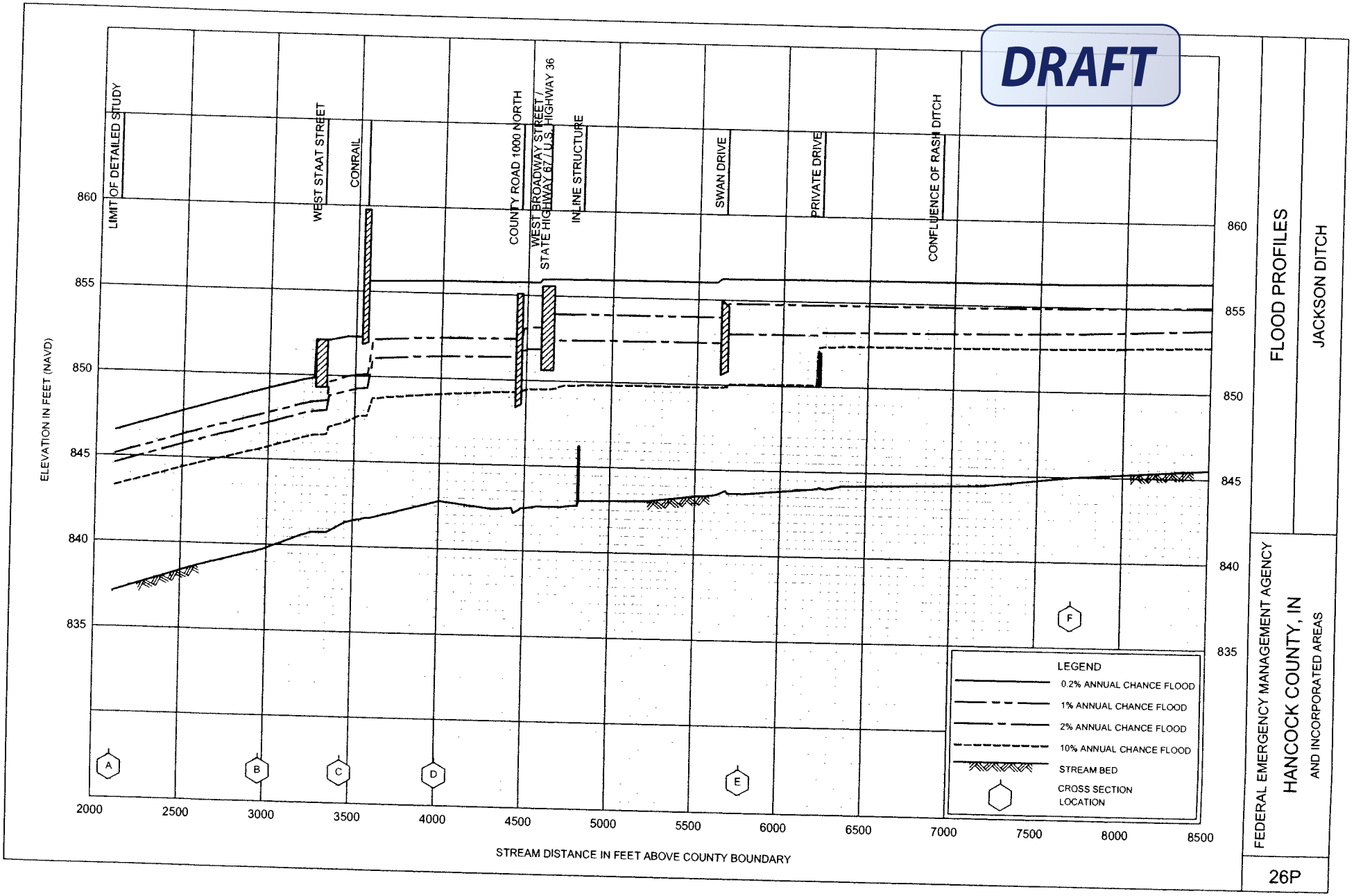
HANCOCK COUNTY, IN

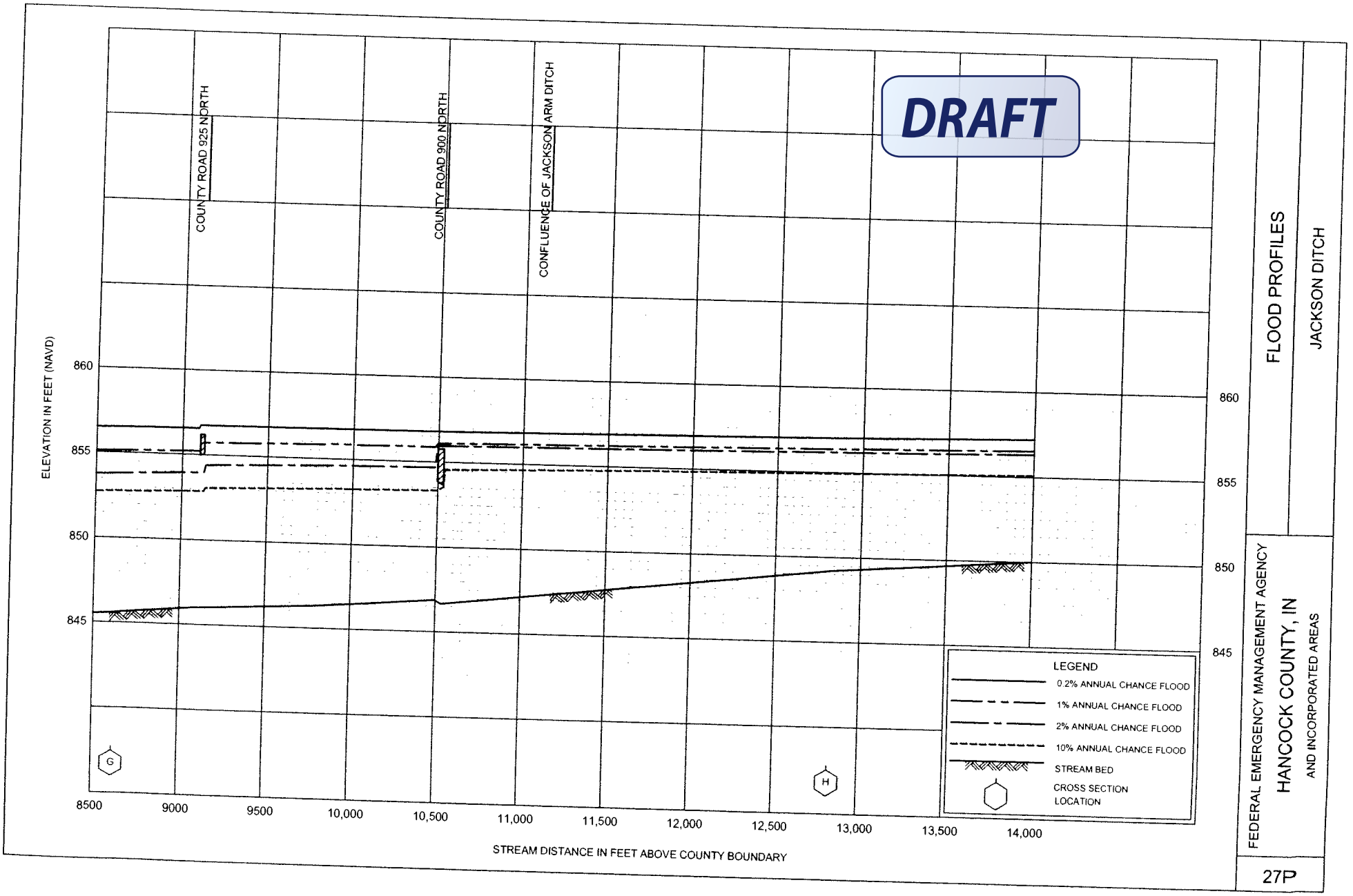
AND INCOPORPORATED AREAS

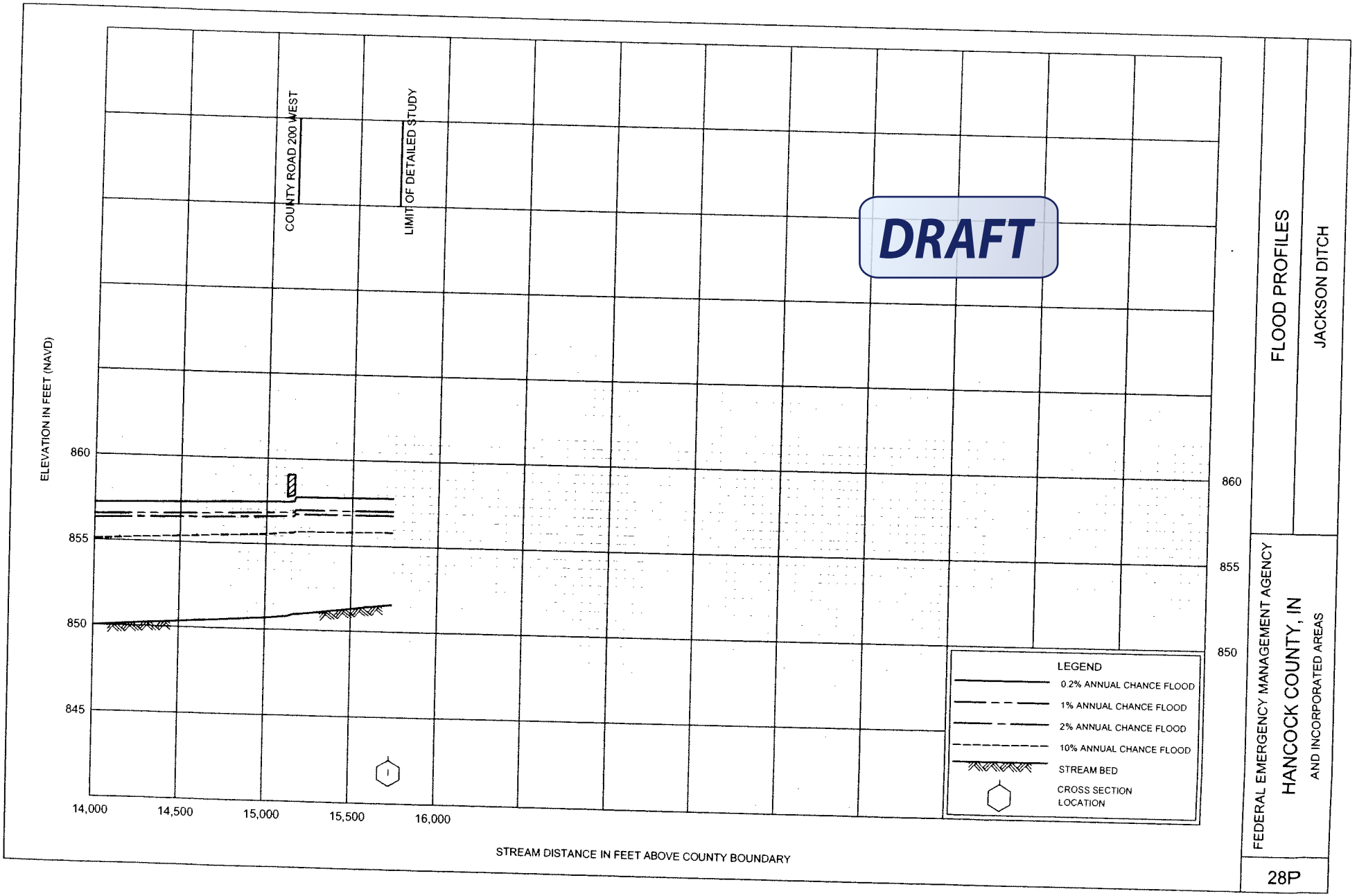
23P

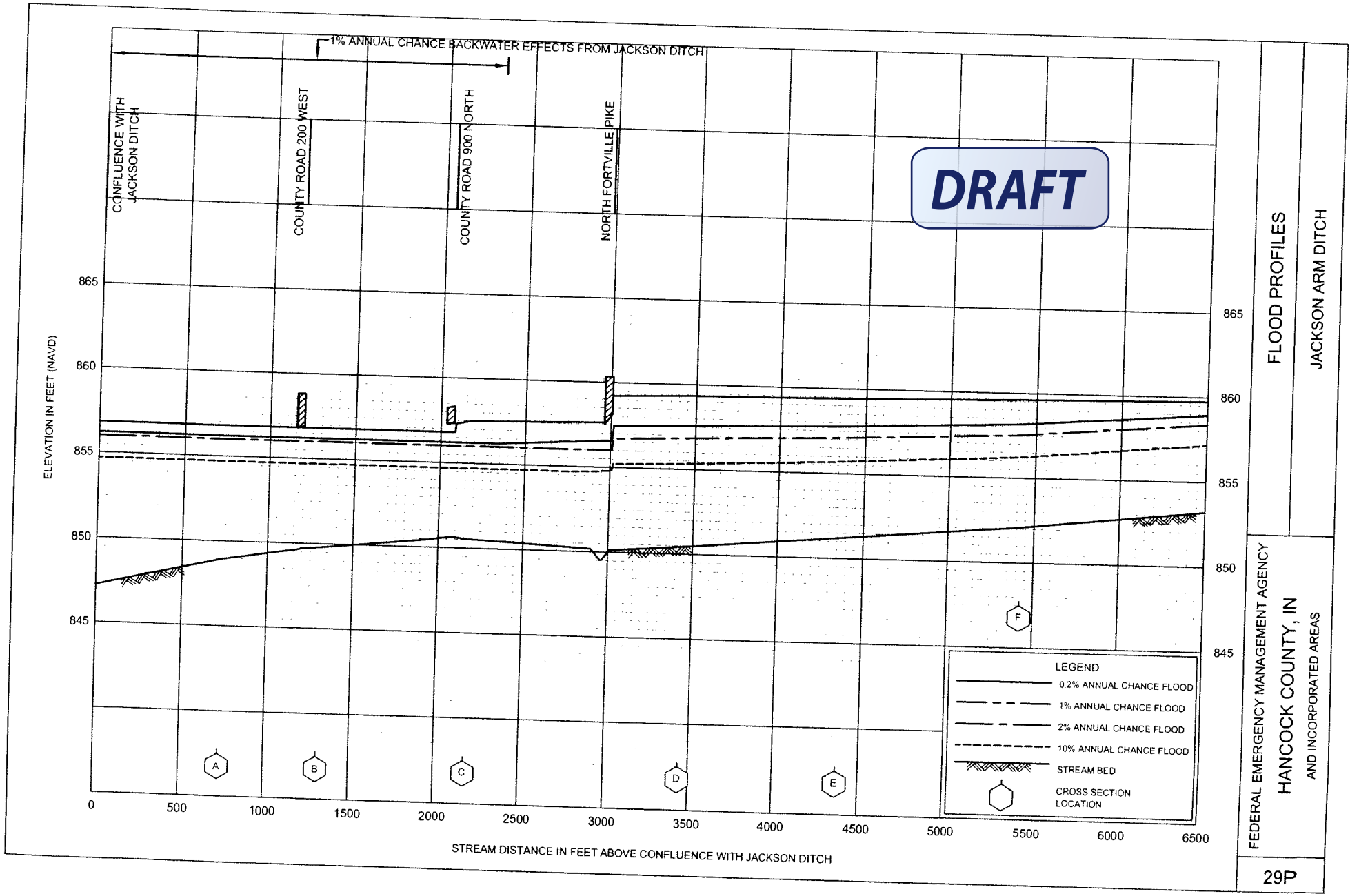

DRAFT
COUNTY ROAD 800 NORTH
COUNTY ROAD 600 WEST
U.S. HIGHWAY 36 / STATE ROUTE 67 / CONRAIL
ELEVATION IN FEET (NAVD)
860
855
850
845
840
835
830
19,500
20,000
20,500
21,000
21,500
22,000
22,500
23,000
23,500
24,000
24,500
25,000
25,500
26,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH FALL CREEK
I
J
K
L
M
N
O
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
DRY BRANCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCOPORPORATED AREAS
24P

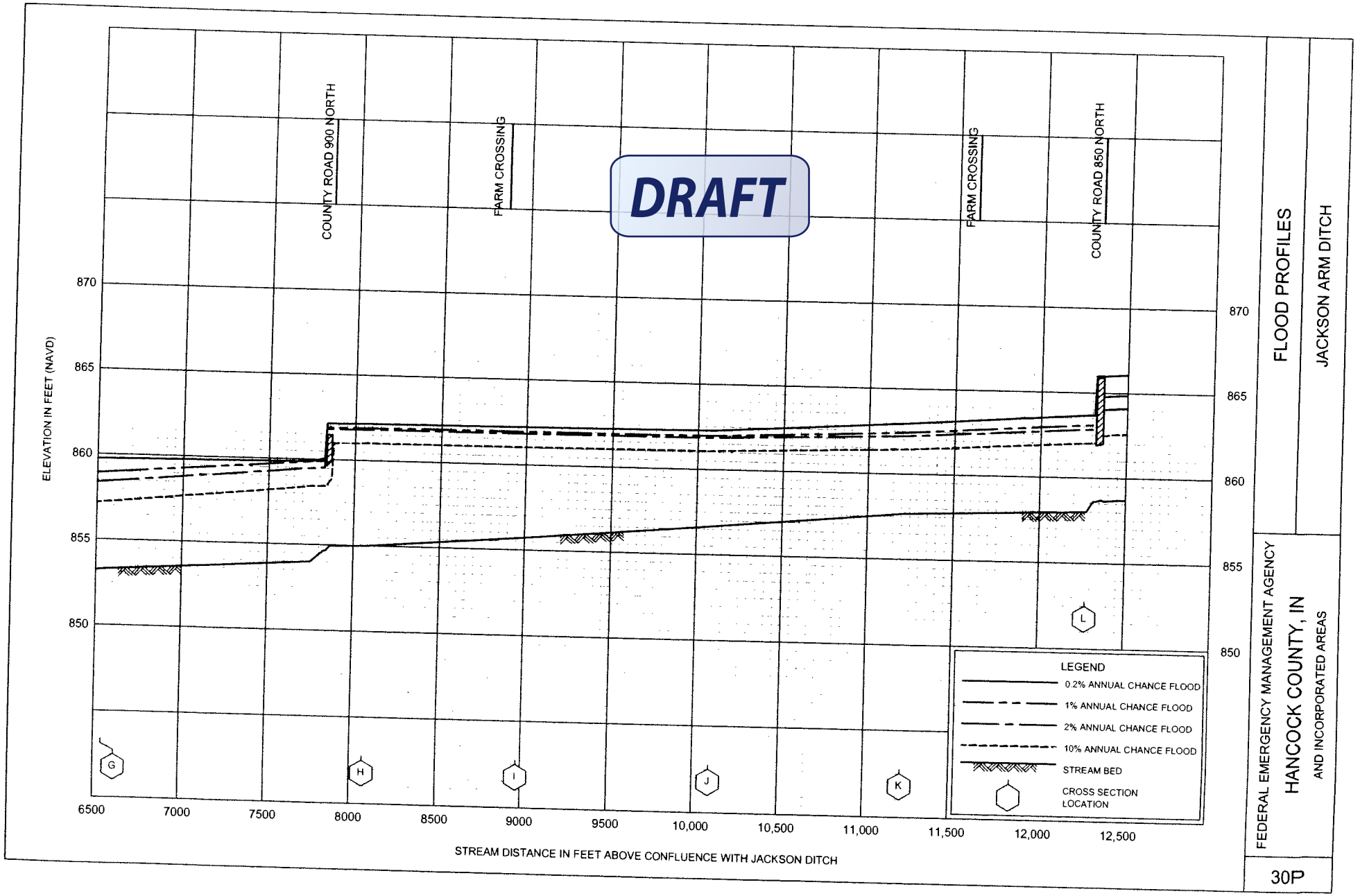

DRAFT
FARM CROSSING
COUNTY ROAD 500 WEST
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
860
855
850
845
25,000
25,500
26,000
26,500
27,000
27,500
28,000
28,500
29,000
P
Q
R
S
T
U
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH FALL CREEK
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
DRY BRANCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCOPORPORATED AREAS
25P

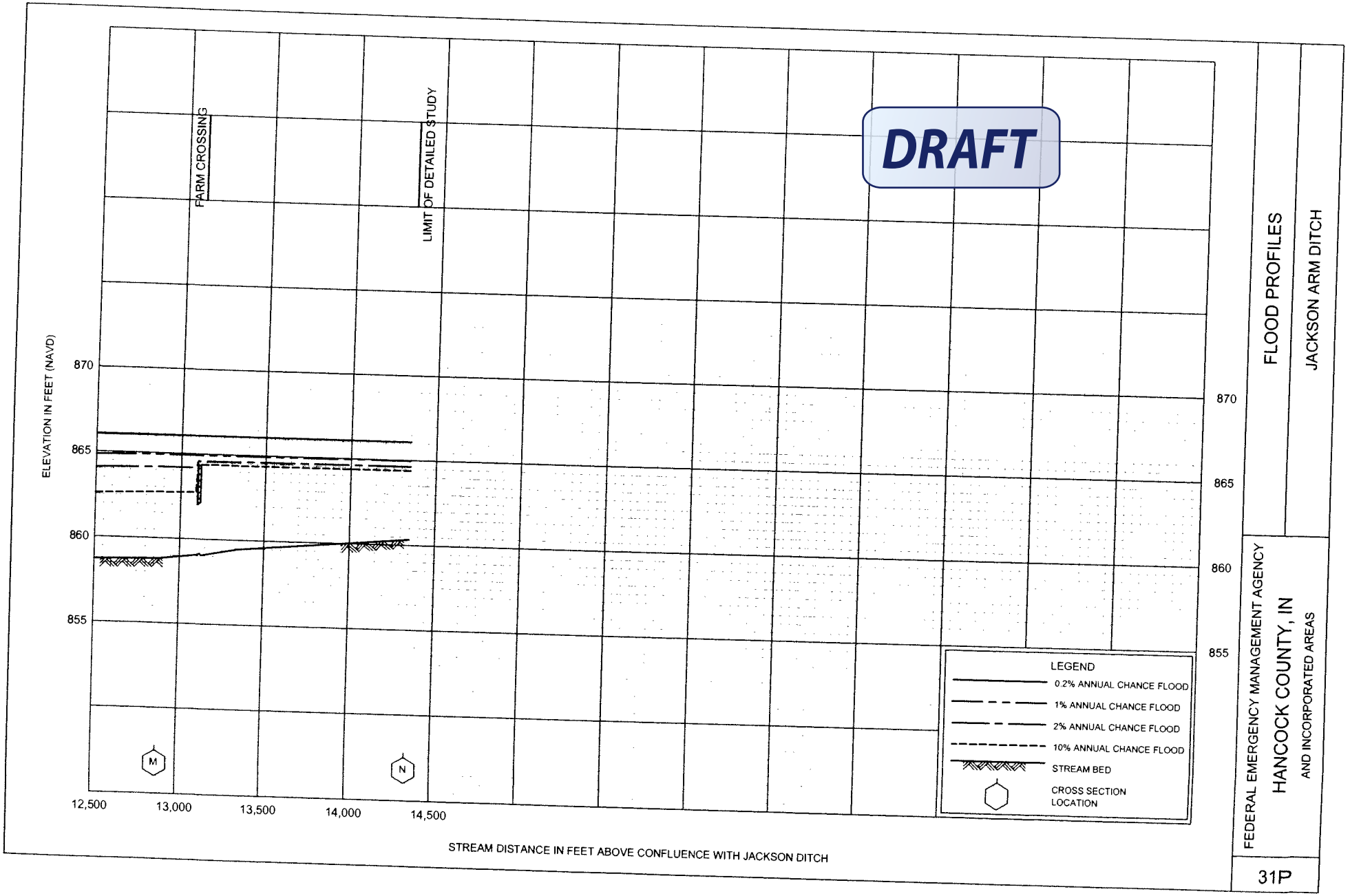

DRAFT
LIMIT OF DETAILED STUDY
WEST STAAT STREET
CONRAIL
COUNTY ROAD 1000 NORTH
WEST BROADWAY STREET / STATE HIGHWAY 67 / U.S. HIGHWAY 36
INLINE STRUCTURE
SWAN DRIVE
PRIVATE DRIVE
CONFLUENCE OF RASH DITCH
ELEVATION IN FEET (NAVD)
860
855
850
845
840
835
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
8500
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
A
B
C
D
E
F
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
JACKSON DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
26P


DRAFT
COUNTY ROAD 925 NORTH
COUNTY ROAD 900 NORTH
CONFLUENCE OF JACKSON ARM DITCH
ELEVATION IN FEET (NAVD)
860
855
850
845
8500
9000
9500
10,000
10,500
11,000
11,500
12,000
12,500
13,000
13,500
14,000
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
G
H
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
JACKSON DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
27P

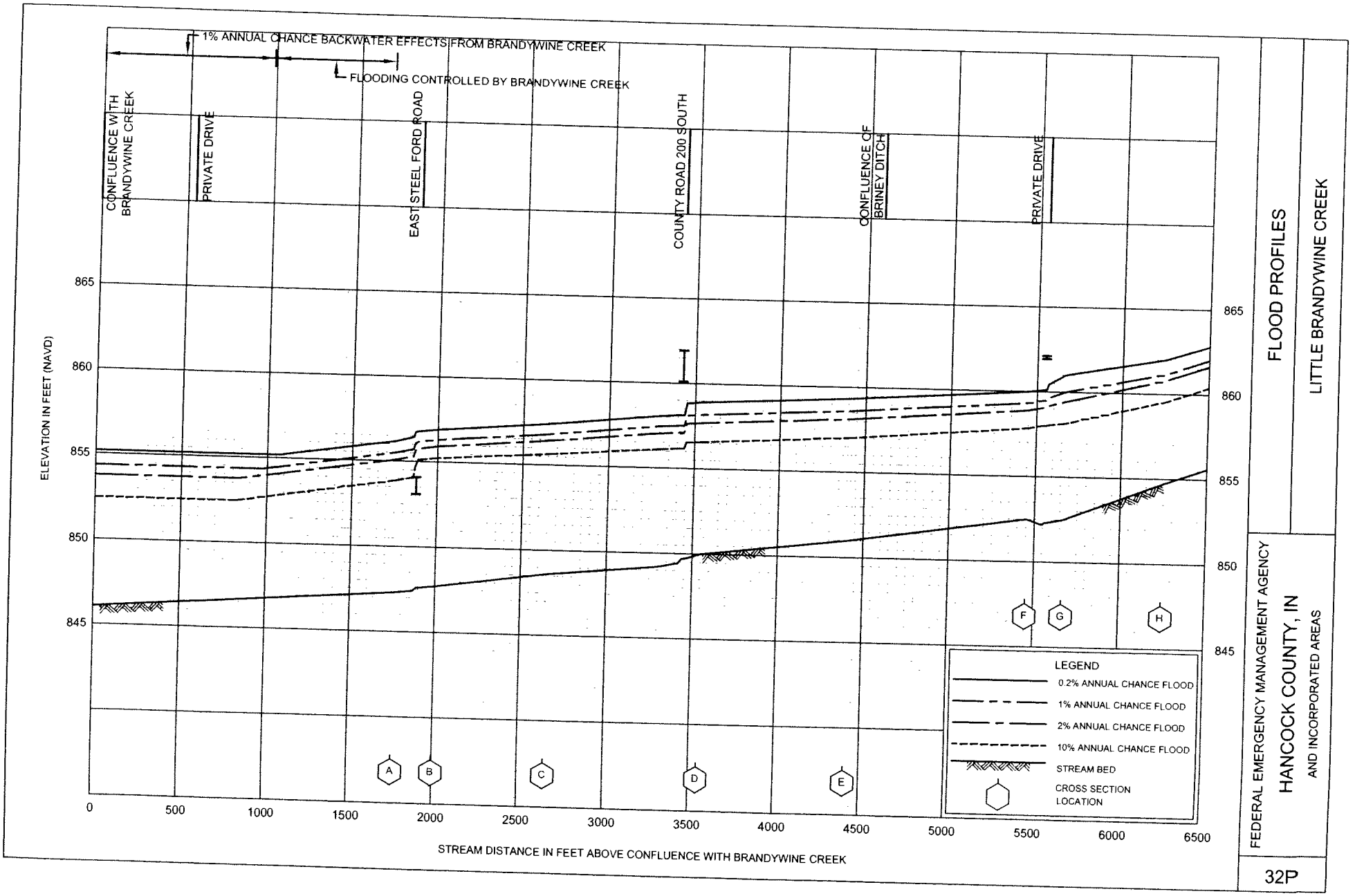

DRAFT
COUNTY ROAD 200 WEST
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
860
855
850
845
14,000
14,500
15,000
15,500
16,000
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
JACKSON DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
28P


1% ANNUAL CHANCE BACKWATER EFFECTS FROM JACKSON DITCH
CONFLUENCE WITH JACKSON DITCH
COUNTY ROAD 200 WEST
COUNTY ROAD 900 NORTH
NORTH FORTVILLE PIKE
DRAFT
ELEVATION IN FEET (NAVD)
865
860
855
850
845
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH JACKSON DITCH
A
B
C
D
E
F
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
JACKSON ARM DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
29P


DRAFT
COUNTY ROAD 900 NORTH
FARM CROSSING
FARM CROSSING
COUNTY ROAD 850 NORTH
ELEVATION IN FEET (NAVD)
870
865
860
855
850
6500
7000
7500
8000
8500
9000
9500
10,000
10,500
11,000
11,500
12,000
12,500
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH JACKSON DITCH
G
H
I
J
K
L
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
JACKSON ARM DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
30P


DRAFT
FARM CROSSING
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
870
865
860
855
12,500
13,000
13,500
14,000
14,500
M
N
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH JACKSON DITCH
FLOOD PROFILES
JACKSON ARM DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
31P

DRAFT



FLOOD PROFILES

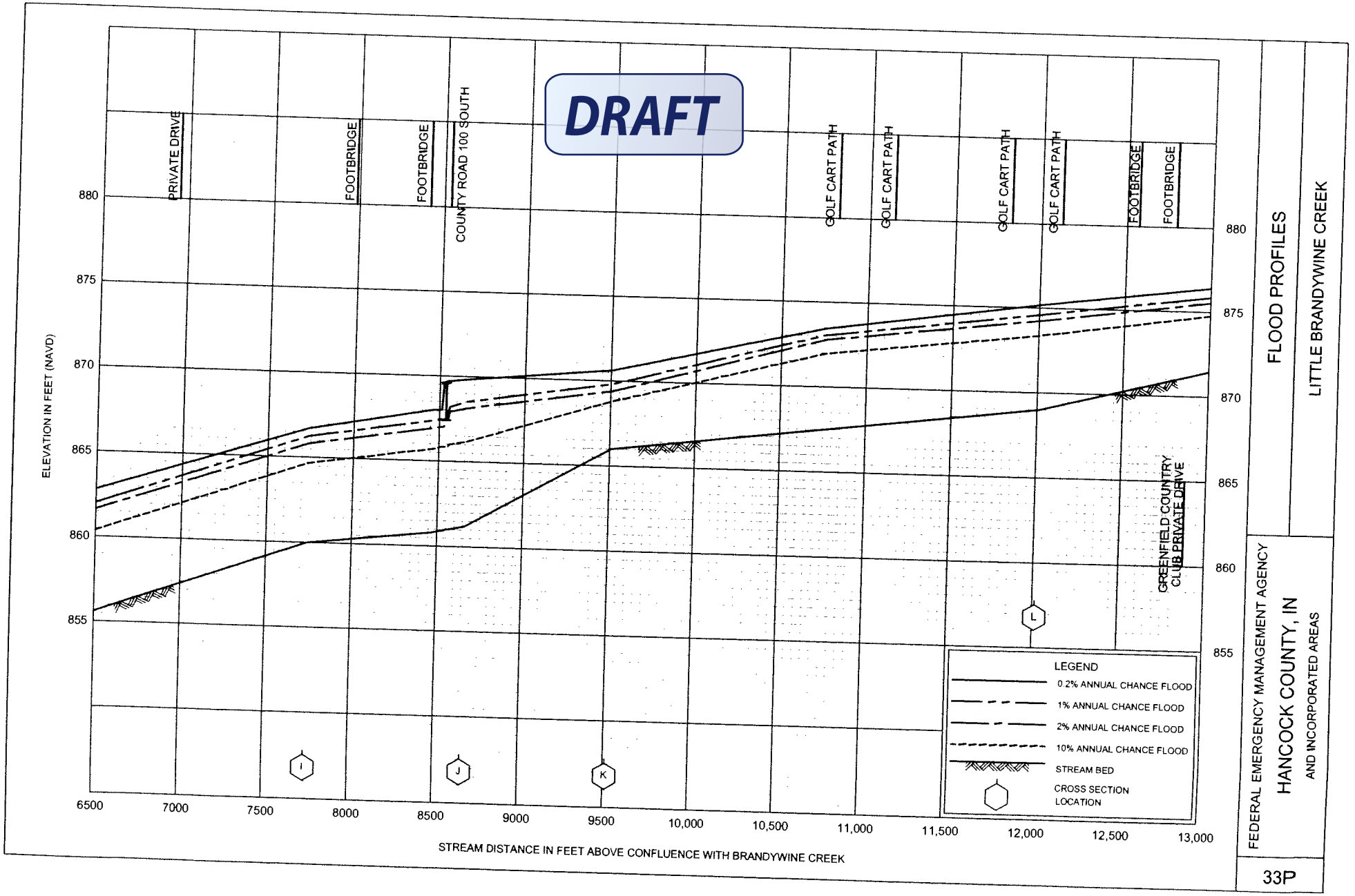
LITTLE BRANDYWINE CREEK

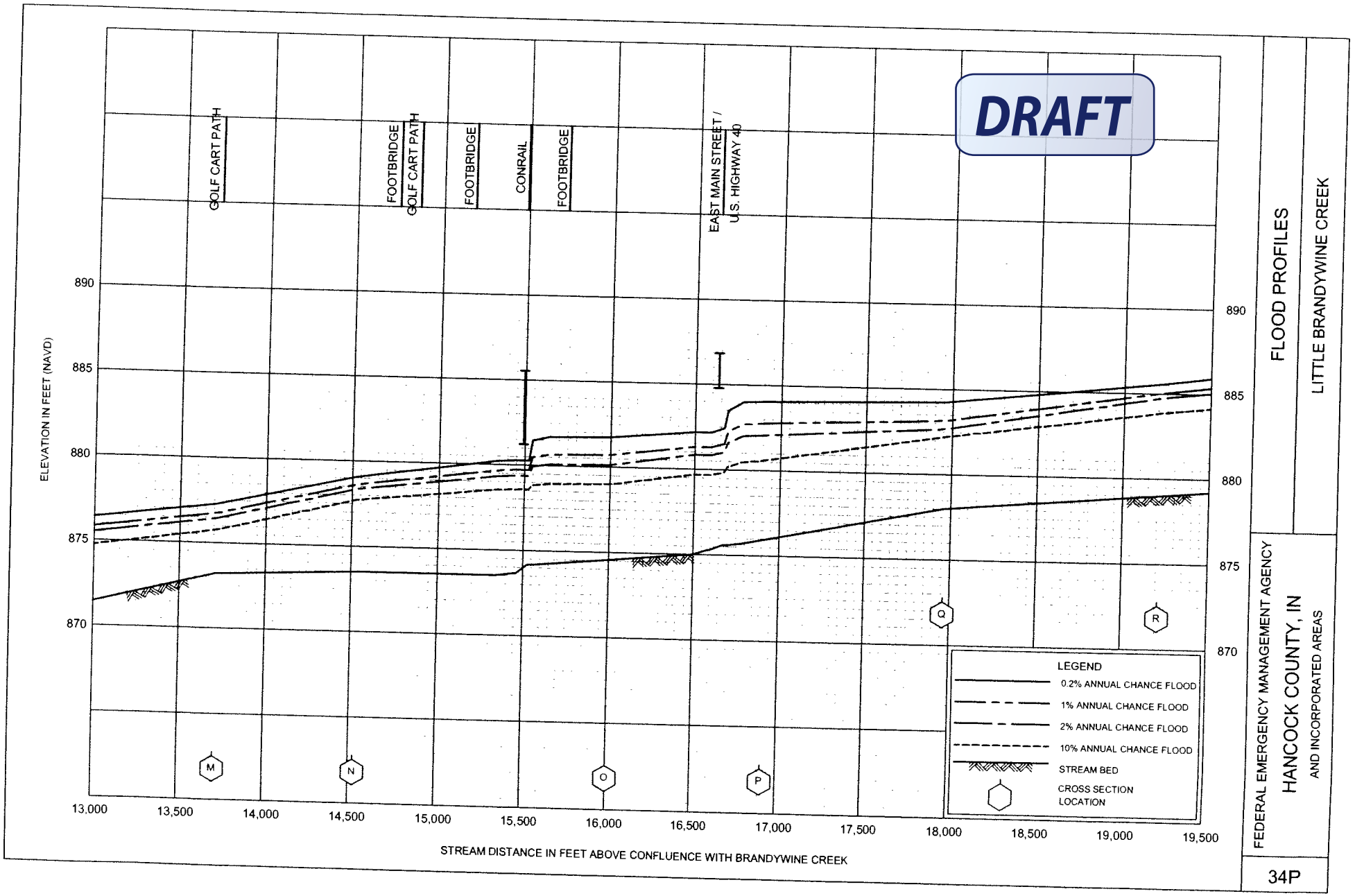
FEDERAL EMERGENCY MANAGEMENT AGENCY

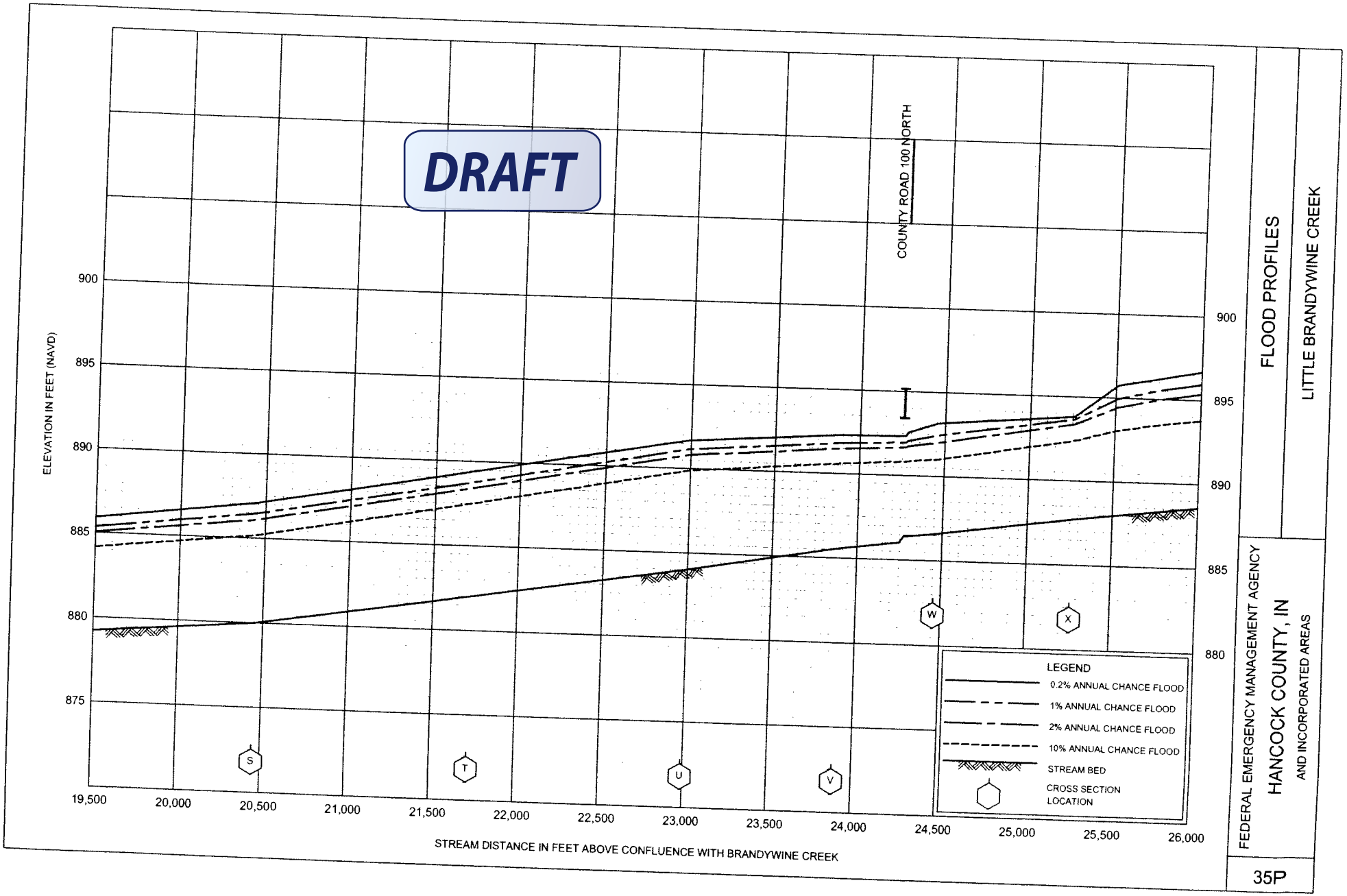
HANCOCK COUNTY, IN

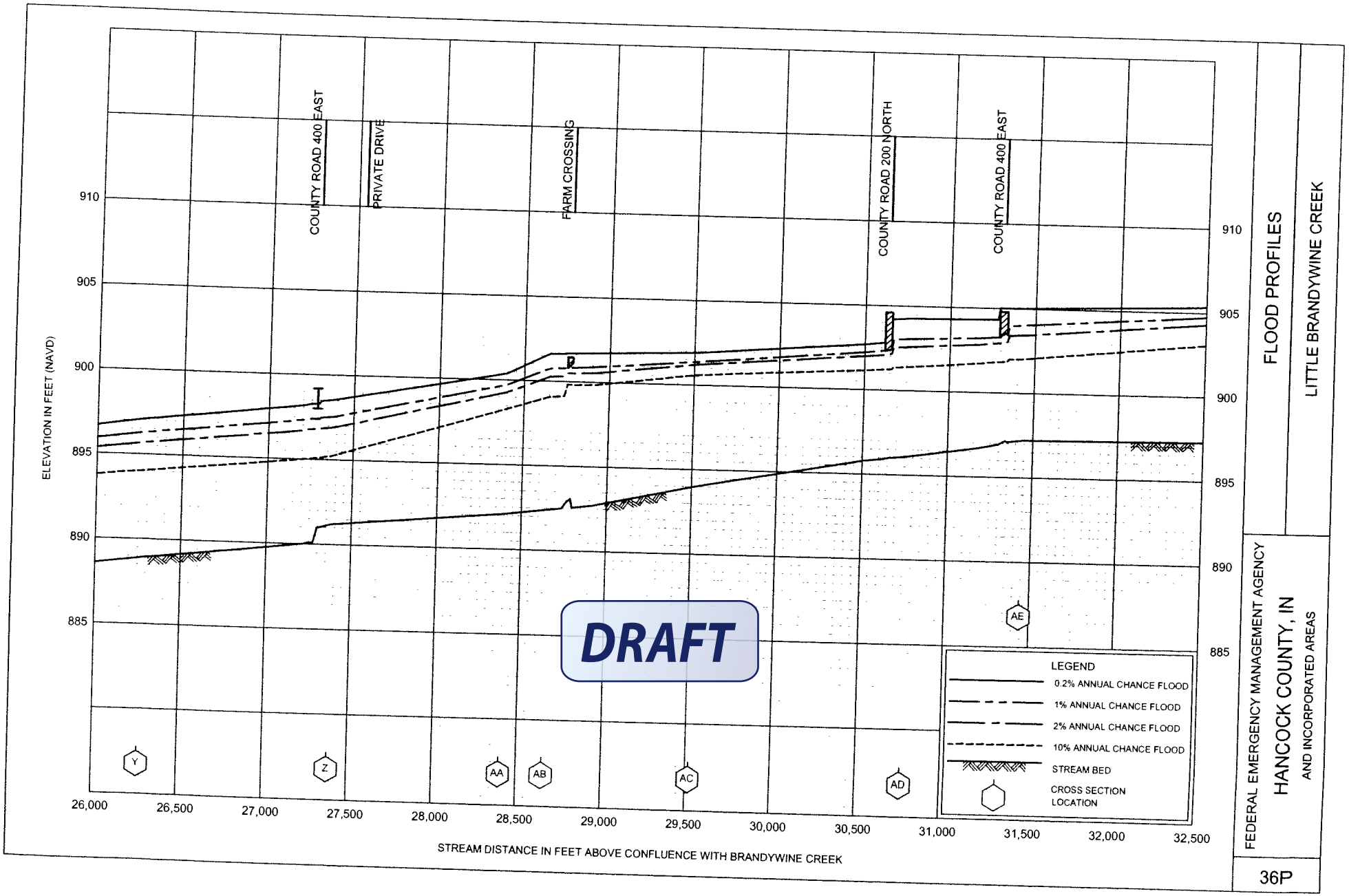
AND INCORPORATED AREAS

32P


DRAFT
PRIVATE DRIVE
FOOTBRIDGE
FOOTBRIDGE
COUNTY ROAD 100 SOUTH
GOLF CART PATH
GOLF CART PATH
GOLF CART PATH
GOLF CART PATH
FOOTBRIDGE
FOOTBRIDGE
GREENFIELD COUNTRY CLUB PRIVATE DRIVE
ELEVATION IN FEET (NAVD)
880
875
870
865
860
855
6500
7000
7500
8000
8500
9000
9500
10,000
10,500
11,000
11,500
12,000
12,500
13,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANDYWINE CREEK
I
J
K
L
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
LITTLE BRANDYWINE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
33P


DRAFT
GOLF CART PATH
FOOTBRIDGE
GOLF CART PATH
FOOTBRIDGE
CONRAIL
FOOTBRIDGE
EAST MAIN STREET / U.S. HIGHWAY 40
ELEVATION IN FEET (NAVD)
890
885
880
875
870
13,000
13,500
14,000
14,500
15,000
15,500
16,000
16,500
17,000
17,500
18,000
18,500
19,000
19,500
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANDYWINE CREEK
M
N
O
P
Q
R
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
LITTLE BRANDYWINE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
34P


DRAFT
COUNTY ROAD 100 NORTH
ELEVATION IN FEET (NAVD)
900
895
890
885
880
875
19,500
20,000
20,500
21,000
21,500
22,000
22,500
23,000
23,500
24,000
24,500
25,000
25,500
26,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANDYWINE CREEK
S
T
U
V
W
X
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
LITTLE BRANDYWINE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
35P



FLOOD PROFILES

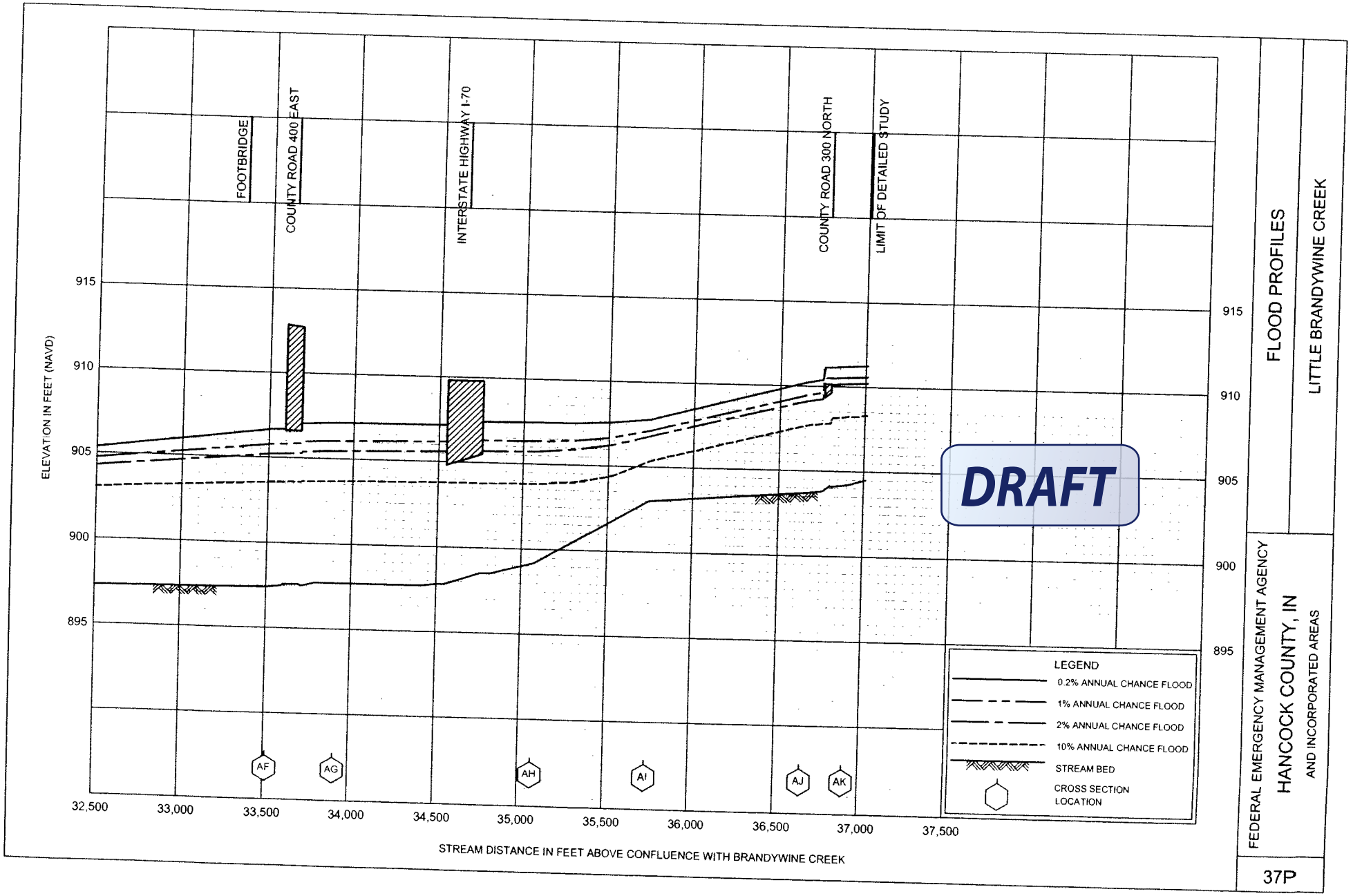
LITTLE BRANDYWINE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

36P



FLOOD PROFILES

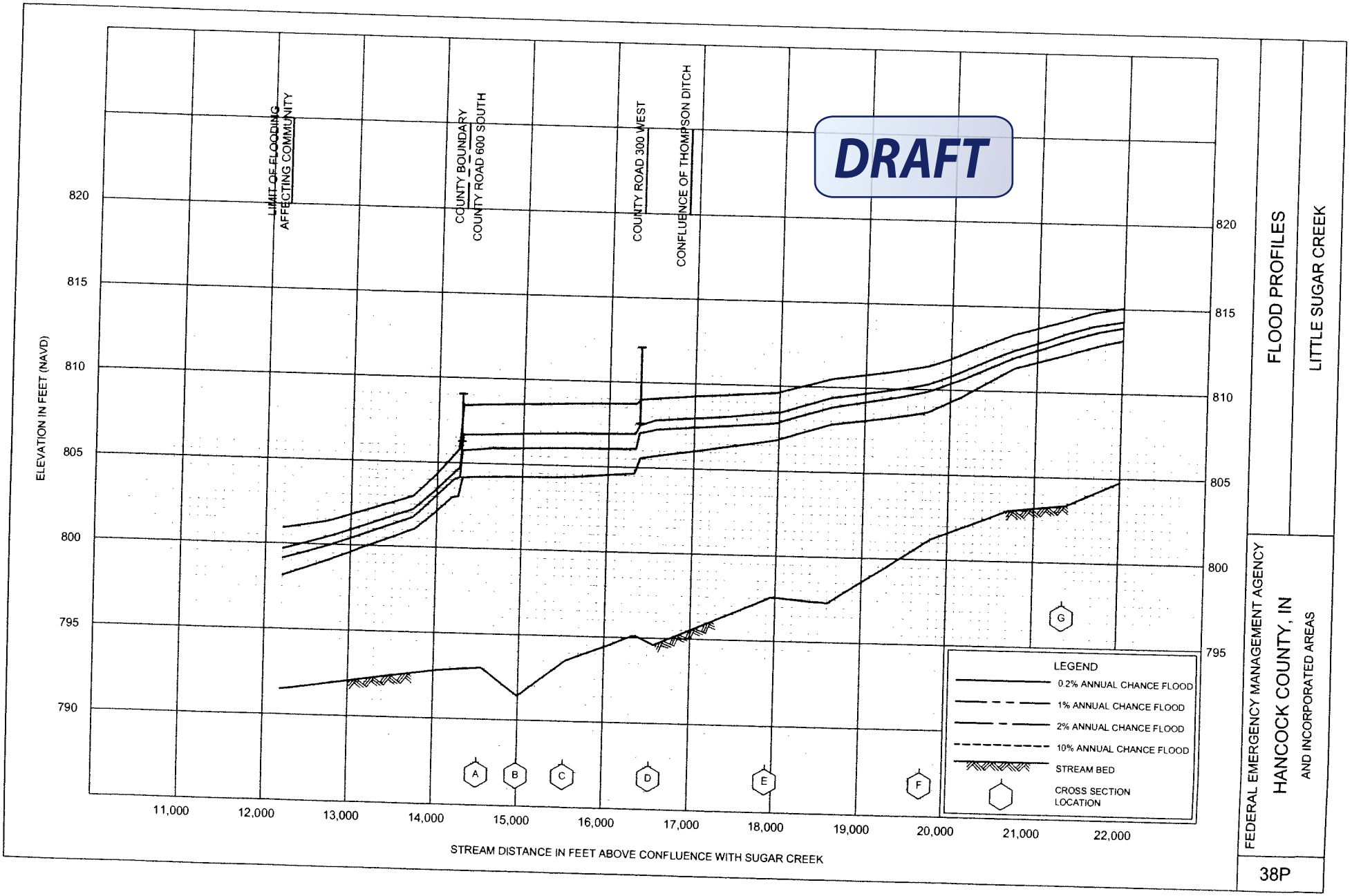
LITTLE BRANDYWINE CREEK

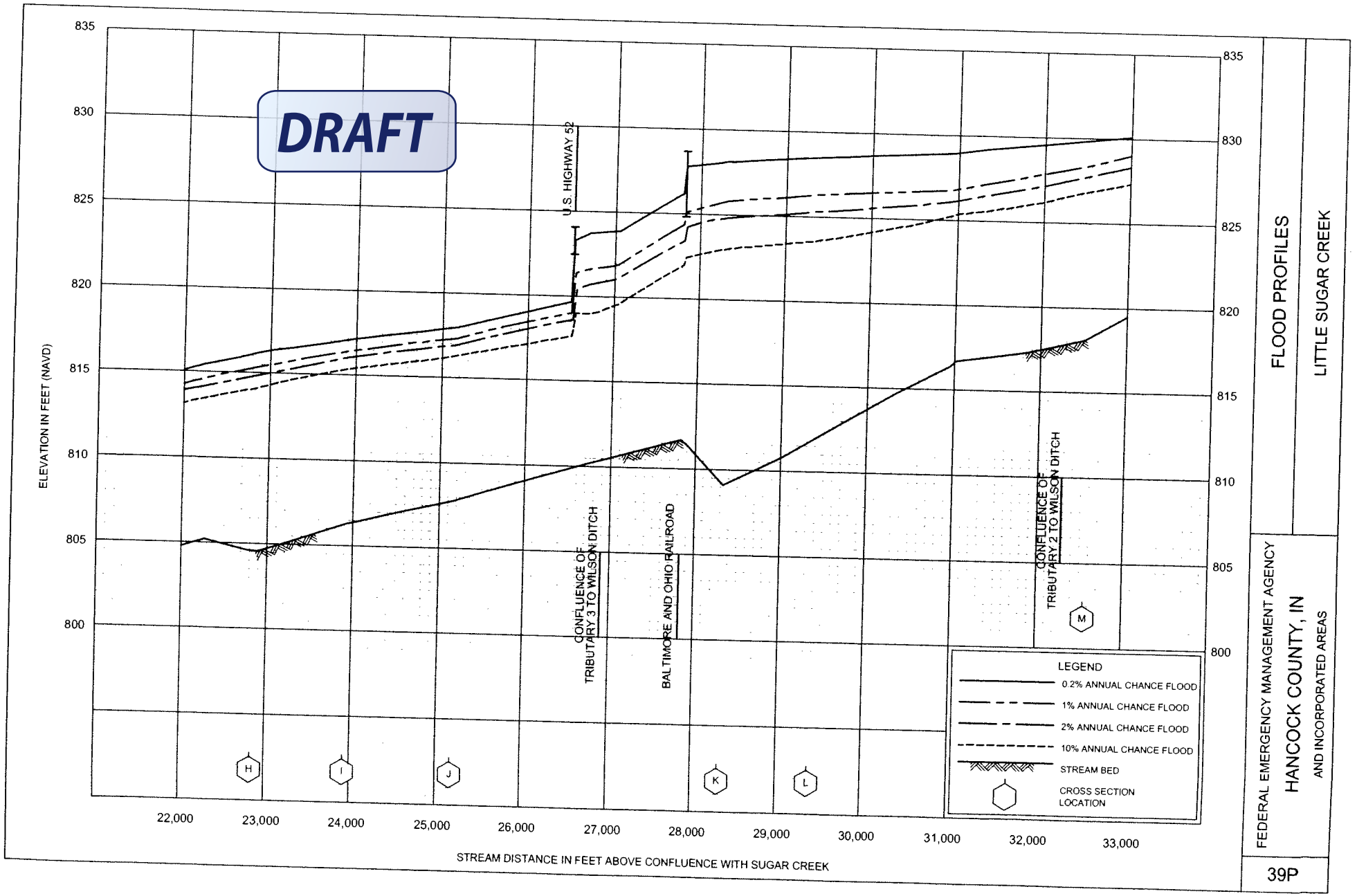
FEDERAL EMERGENCY MANAGEMENT AGENCY

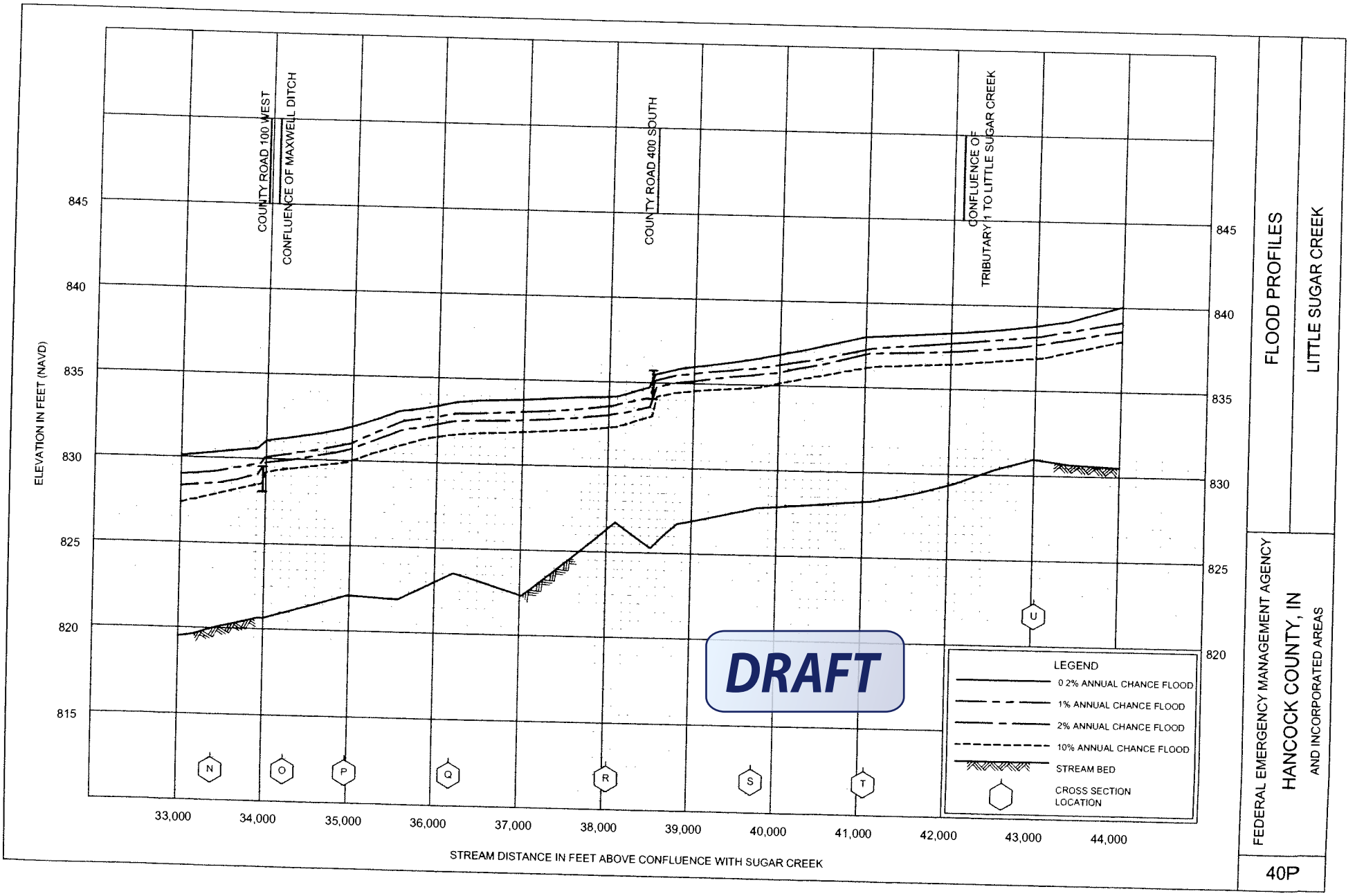
HANCOCK COUNTY, IN

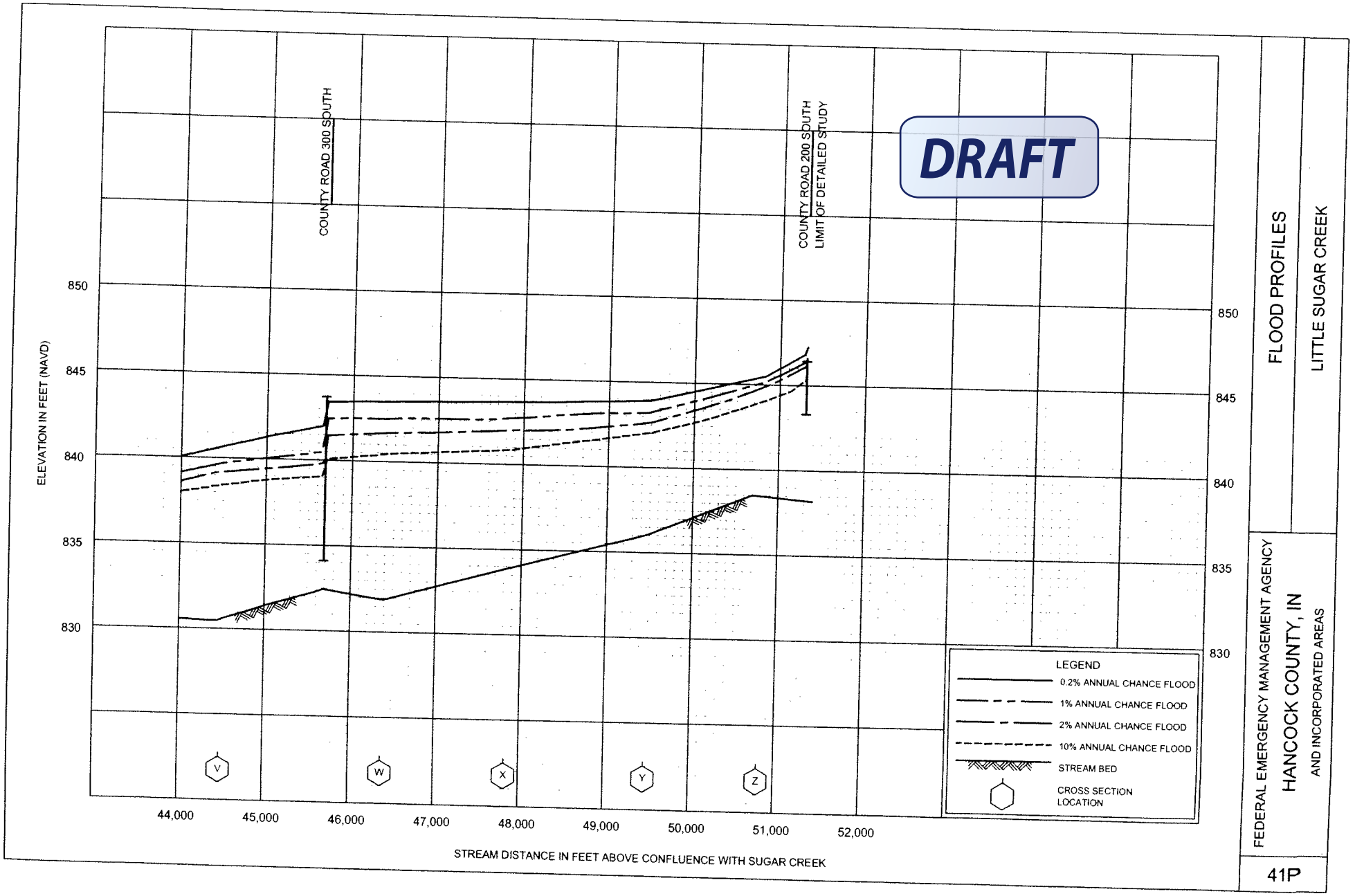
AND INCORPORATED AREAS

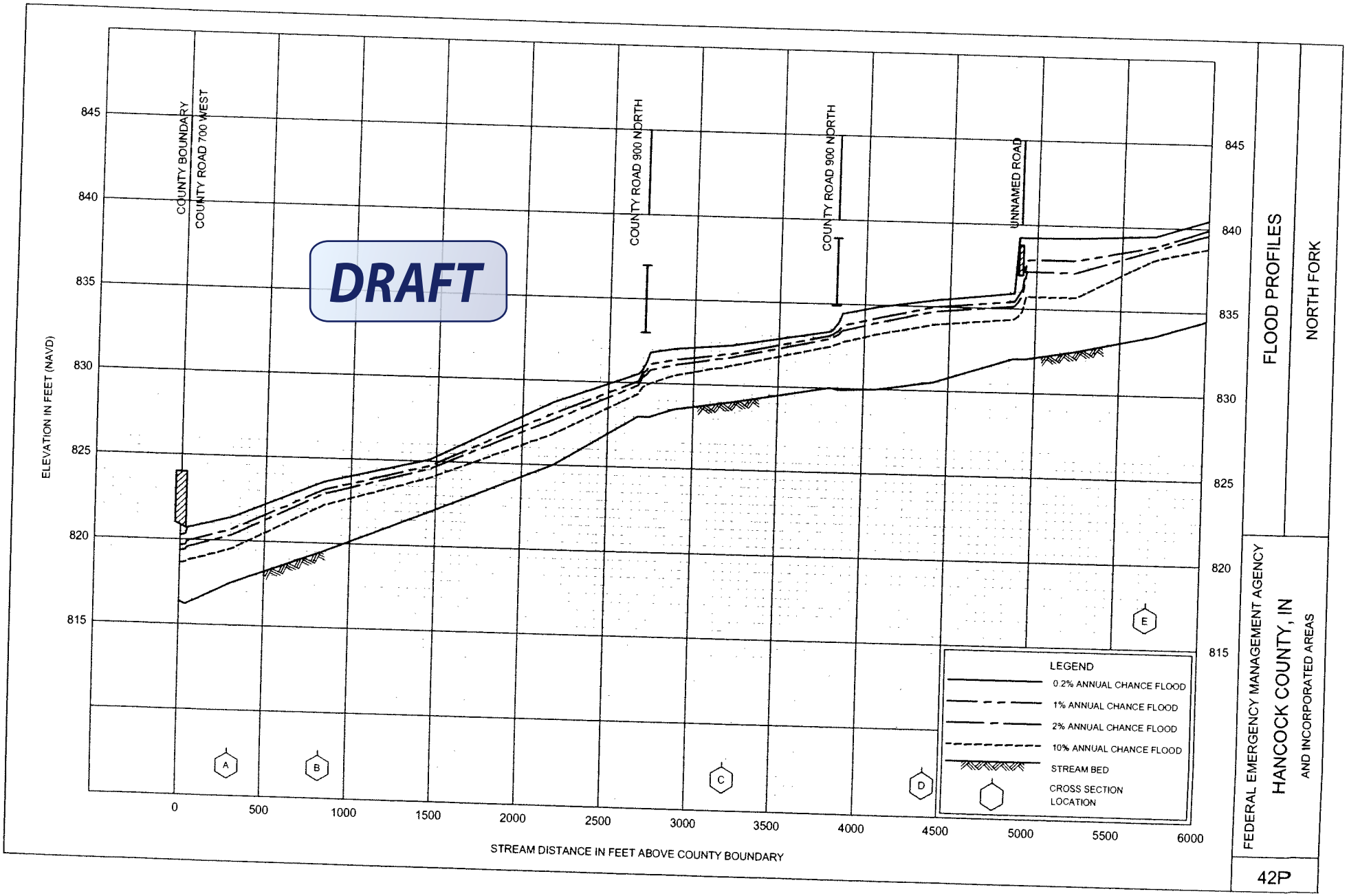
37P


DRAFT
LIMIT OF FLOODING AFFECTING COMMUNITY
COUNTY BOUNDARY
COUNTY ROAD 600 SOUTH
COUNTY ROAD 300 WEST
CONFLUENCE OF THOMPSON DITCH
ELEVATION IN FEET (NAVD)
820
815
810
805
800
795
790
11,000
12,000
13,000
14,000
15,000
16,000
17,000
18,000
19,000
20,000
21,000
22,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SUGAR CREEK
A
B
C
D
E
F
G
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
LITTLE SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
38P


DRAFT
ELEVATION IN FEET (NAVD)
835
830
825
820
815
810
805
800
U.S. HIGHWAY 52
CONFLUENCE OF TRIBUTARY 3 TO WILSON DITCH
BALTIMORE AND OHIO RAILROAD
CONFLUENCE OF TRIBUTARY 2 TO WILSON DITCH
H
I
J
K
L
M
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
22,000
23,000
24,000
25,000
26,000
27,000
28,000
29,000
30,000
31,000
32,000
33,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SUGAR CREEK
FLOOD PROFILES
LITTLE SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
39P


COUNTY ROAD 100 WEST
CONFLUENCE OF MAXWELL DITCH
COUNTY ROAD 400 SOUTH
CONFLUENCE OF TRIBUTARY 1 TO LITTLE SUGAR CREEK
ELEVATION IN FEET (NAVD)
845
840
835
830
825
820
815
33,000
34,000
35,000
36,000
37,000
38,000
39,000
40,000
41,000
42,000
43,000
44,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SUGAR CREEK
N
O
P
Q
R
S
T
U
DRAFT
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
LITTLE SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
40P


DRAFT
COUNTY ROAD 300 SOUTH
COUNTY ROAD 200 SOUTH
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
850
845
840
835
830
44,000
45,000
46,000
47,000
48,000
49,000
50,000
51,000
52,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SUGAR CREEK
V
W
X
Y
Z
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
LITTLE SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
41P



FLOOD PROFILES

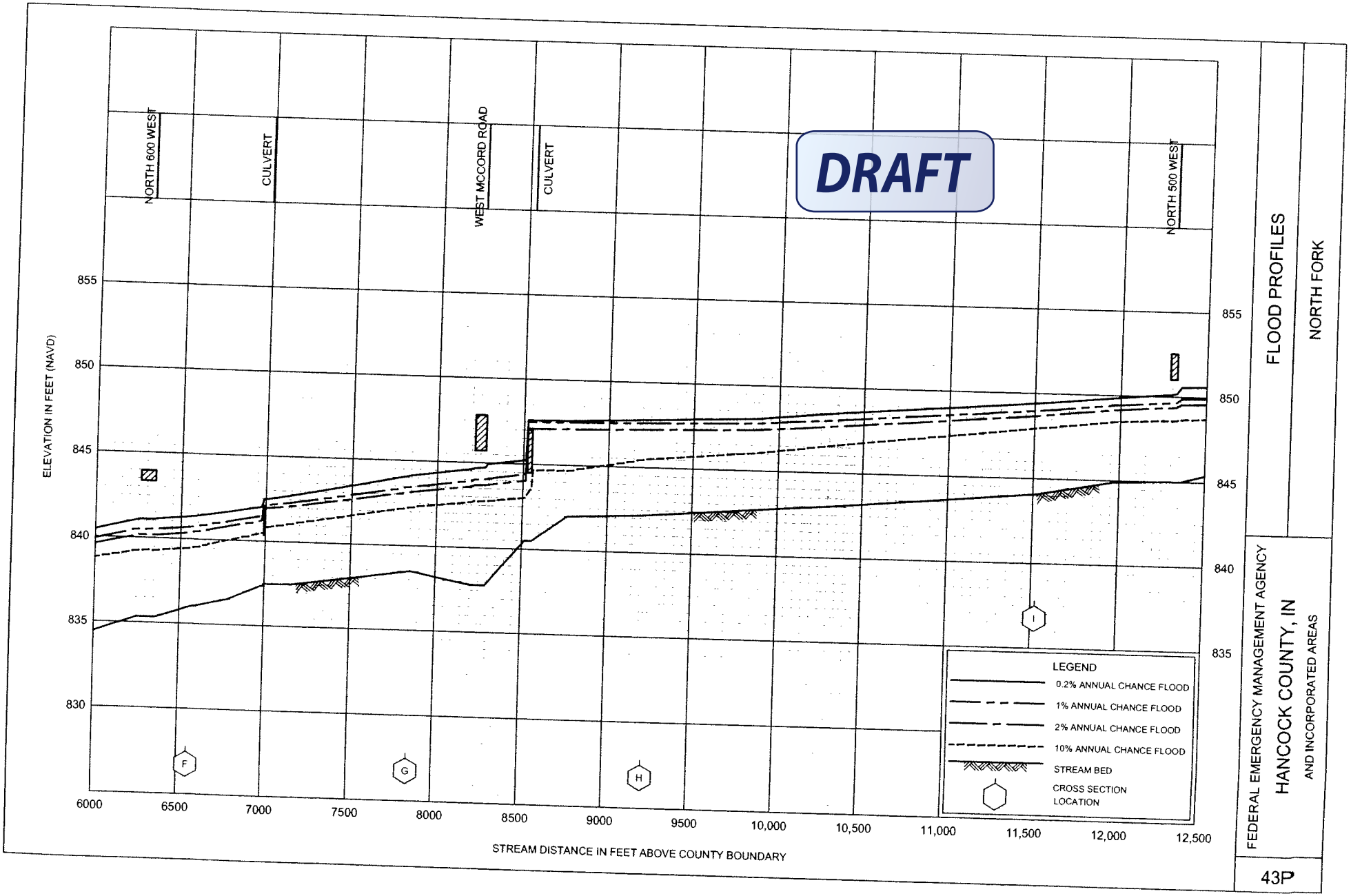
NORTH FORK

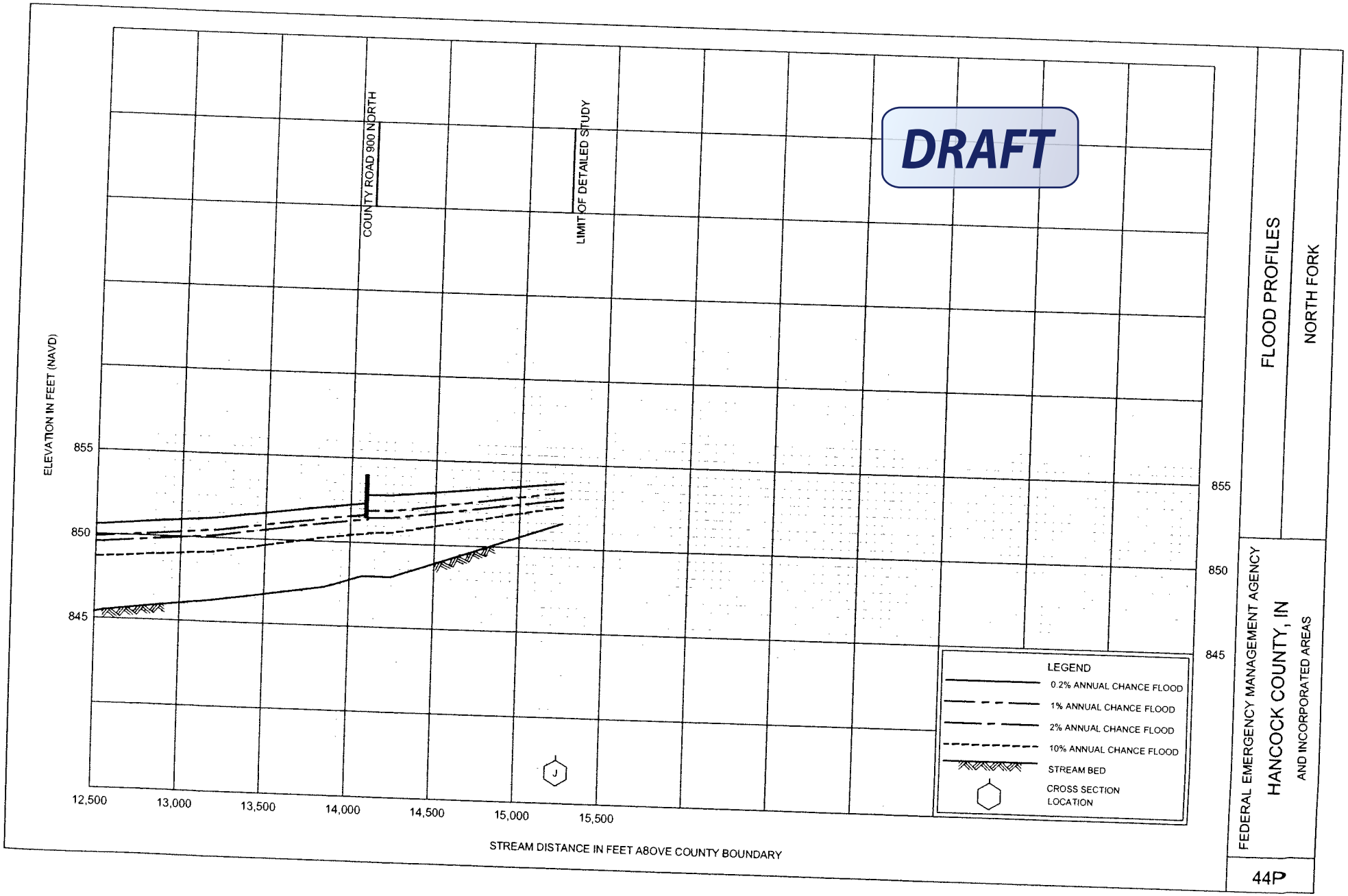
FEDERAL EMERGENCY MANAGEMENT AGENCY

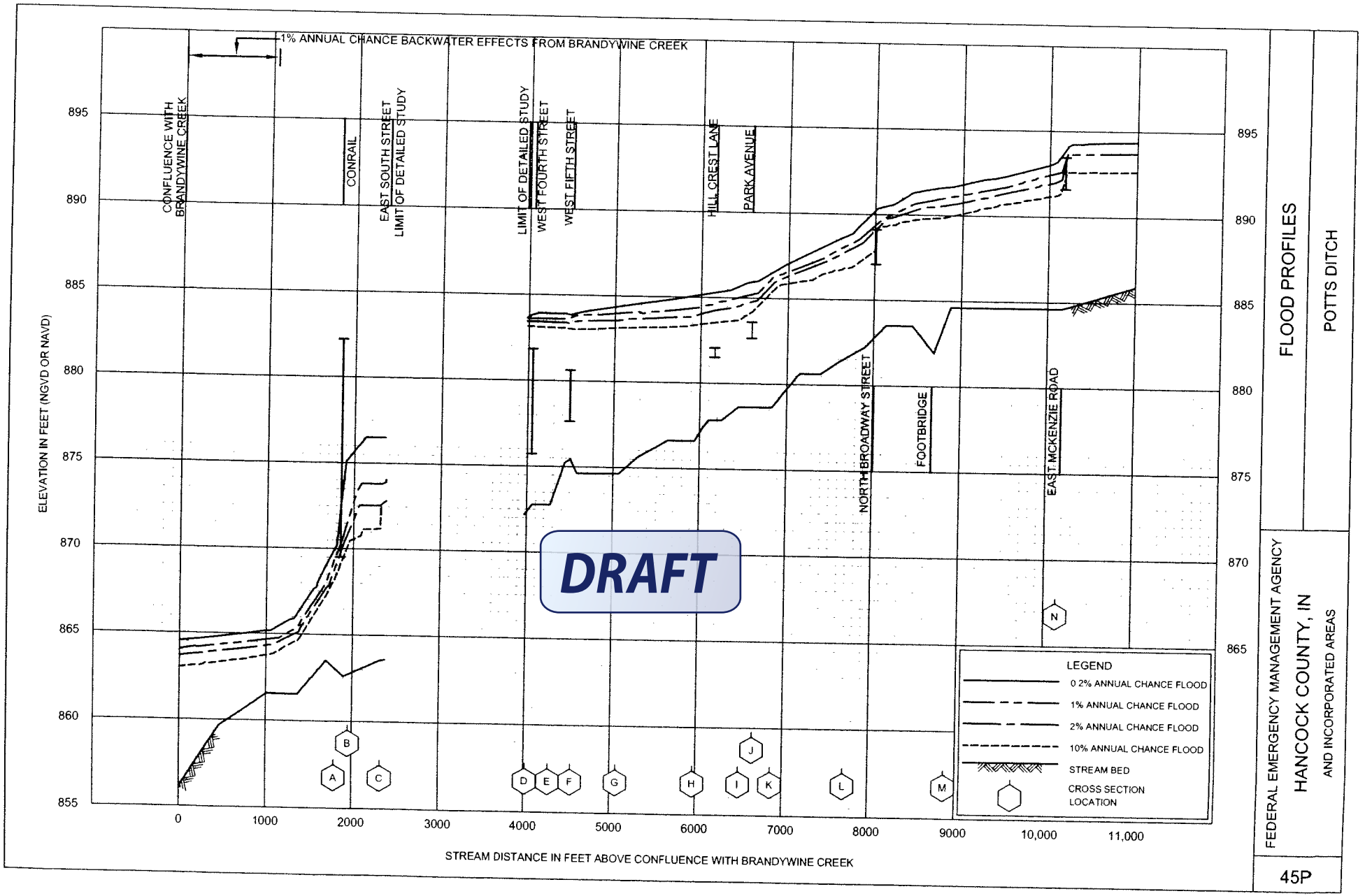
HANCOCK COUNTY, IN

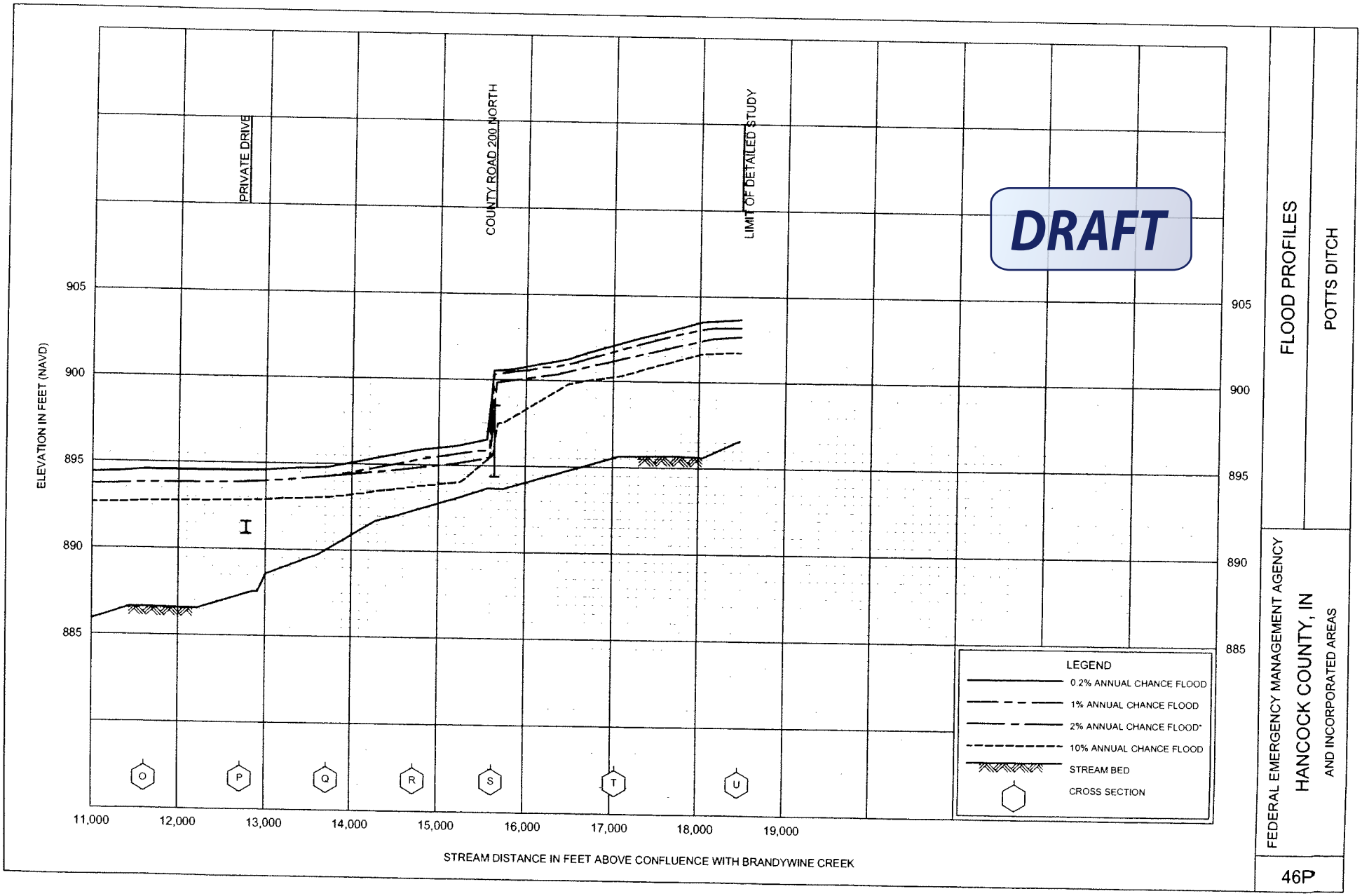
AND INCORPORATED AREAS

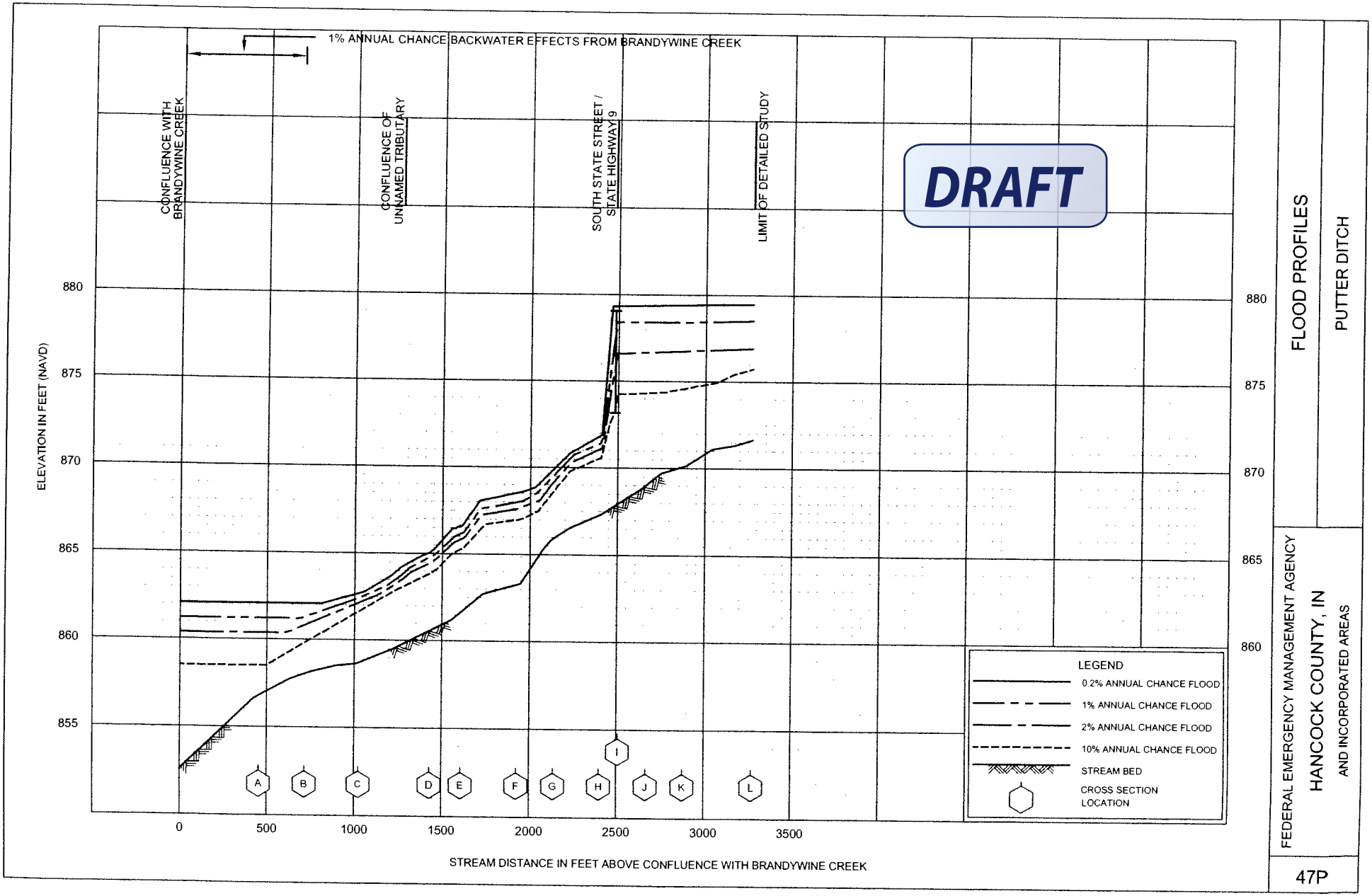
42P


DRAFT
NORTH 600 WEST
CULVERT
WEST MCCORD ROAD
CULVERT
NORTH 500 WEST
ELEVATION IN FEET (NAVD)
855
850
845
840
835
830
F
G
H
I
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
6000
6500
7000
7500
8000
8500
9000
9500
10,000
10,500
11,000
11,500
12,000
12,500
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
FLOOD PROFILES
NORTH FORK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
43P


DRAFT
COUNTY ROAD 900 NORTH
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
855
850
845
12,500
13,000
13,500
14,000
14,500
15,000
15,500
STREAM DISTANCE IN FEET ABOVE COUNTY BOUNDARY
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
J
FLOOD PROFILES
NORTH FORK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
44P


1% ANNUAL CHANCE BACKWATER EFFECTS FROM BRANDYWINE CREEK
CONFLUENCE WITH BRANDYWINE CREEK
CONRAIL
EAST SOUTH STREET
LIMIT OF DETAILED STUDY
LIMIT OF DETAILED STUDY
WEST FOURTH STREET
WEST FIFTH STREET
HILL CREST LANE
PARK AVENUE
NORTH BROADWAY STREET
FOOTBRIDGE
EAST MCKENZIE ROAD
ELEVATION IN FEET (NGVD OR NAVD)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANDYWINE CREEK
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
DRAFT
FLOOD PROFILES
POTTS DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
45P


PRIVATE DRIVE
COUNTY ROAD 200 NORTH
LIMIT OF DETAILED STUDY
DRAFT
ELEVATION IN FEET (NAVD)
905
900
895
890
885
11,000
12,000
13,000
14,000
15,000
16,000
17,000
18,000
19,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANDYWINE CREEK
O
P
Q
R
S
T
U
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD*
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION
FLOOD PROFILES
POTTS DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
46P



FLOOD PROFILES

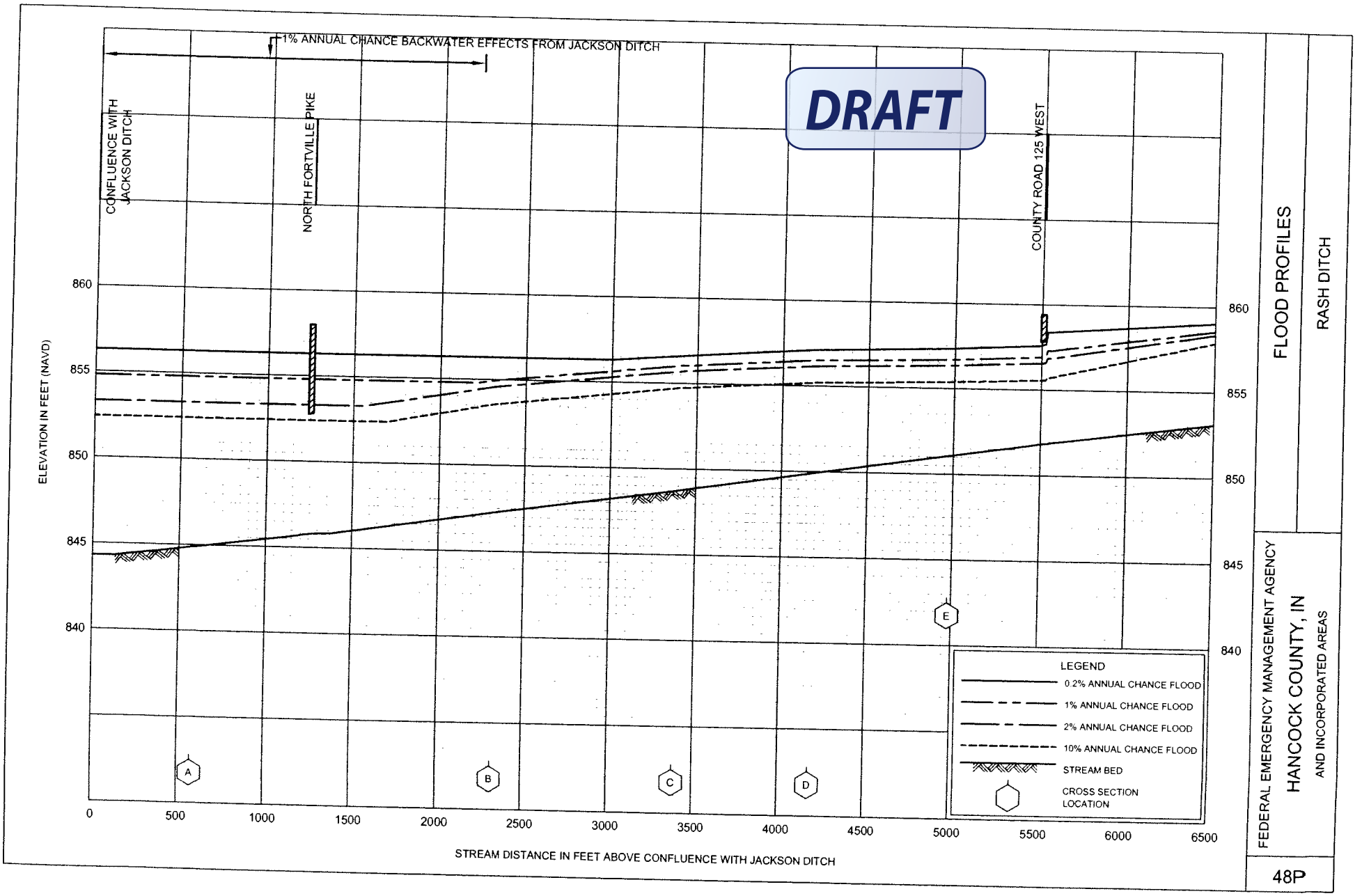
PUTTER DITCH

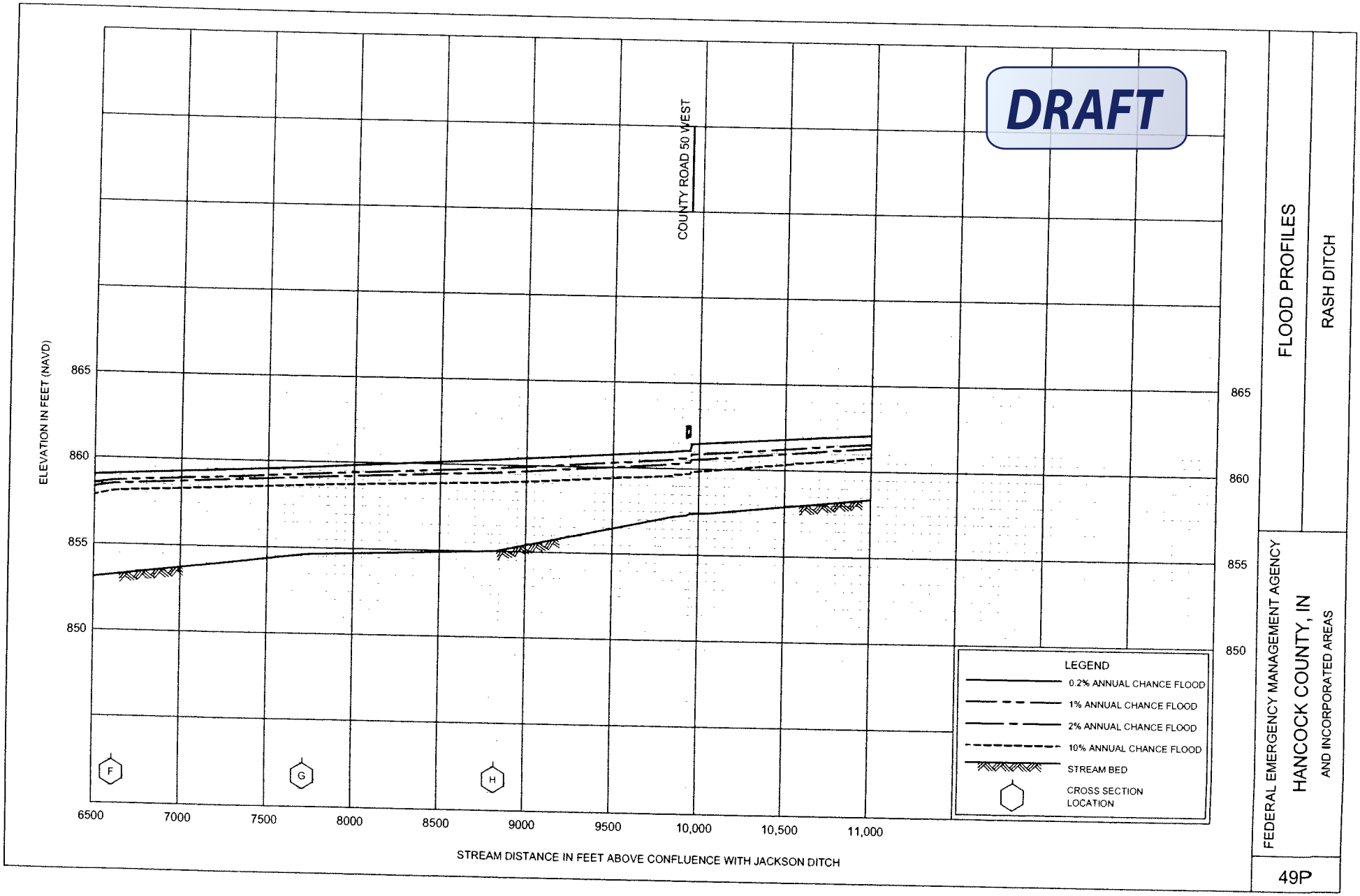
FEDERAL EMERGENCY MANAGEMENT AGENCY

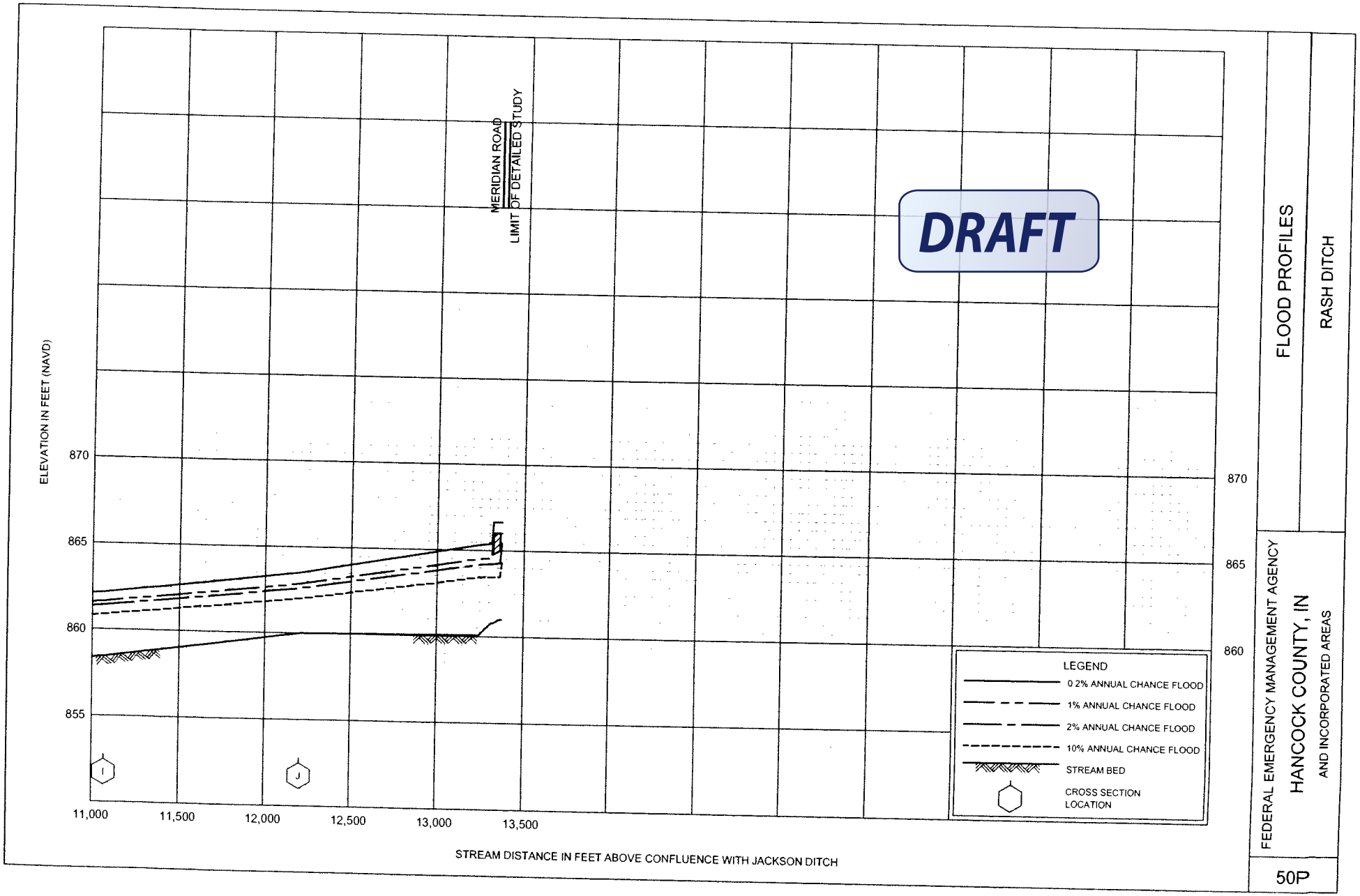
HANCOCK COUNTY, IN

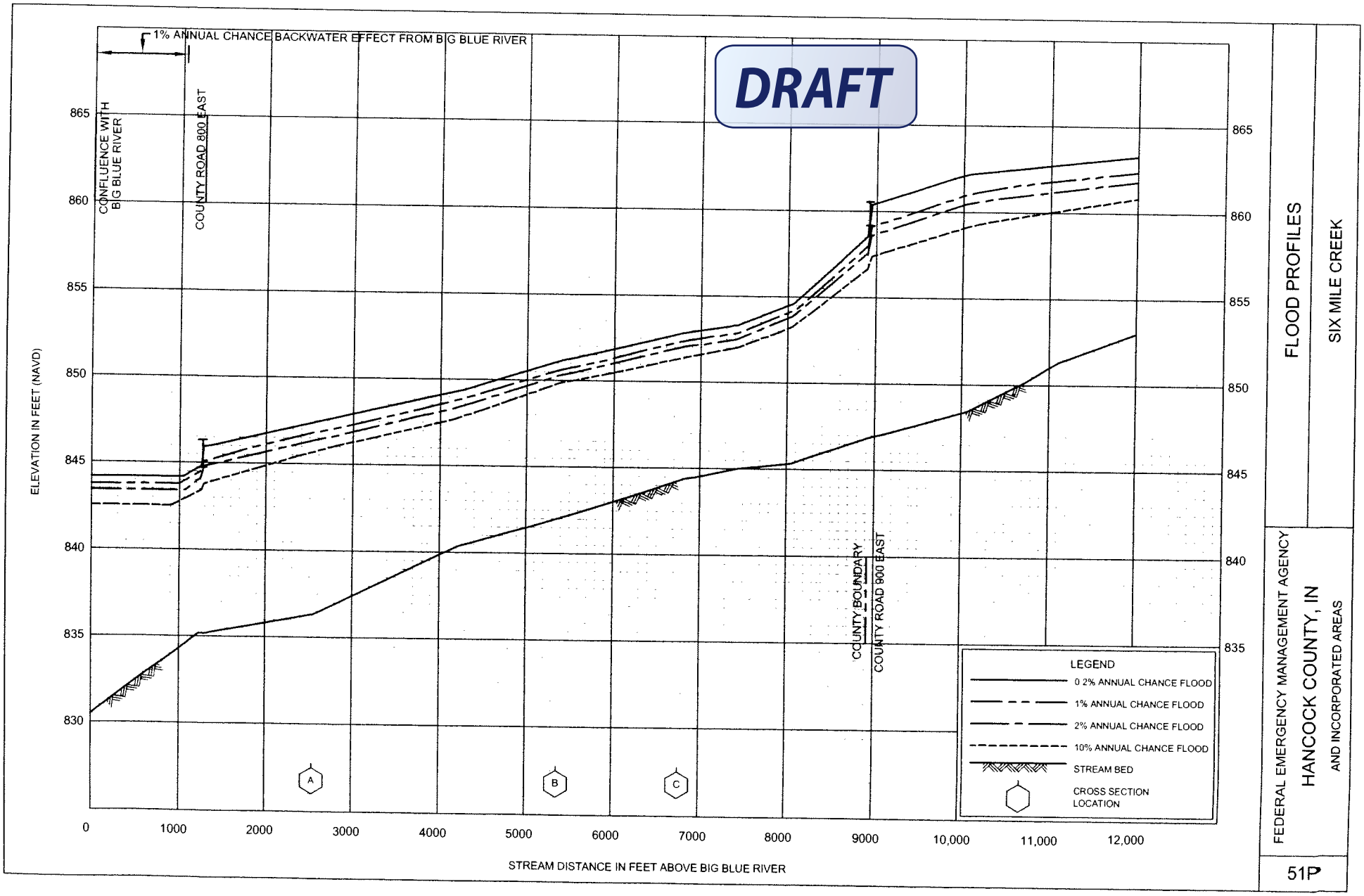
AND INCORPORATED AREAS

47P


1% ANNUAL CHANCE BACKWATER EFFECTS FROM JACKSON DITCH
CONFLUENCE WITH JACKSON DITCH
NORTH FORTVILLE PIKE
COUNTY ROAD 125 WEST
DRAFT
ELEVATION IN FEET (NAVD)
860
855
850
845
840
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH JACKSON DITCH
A
B
C
D
E
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
RASH DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
48P


DRAFT
COUNTY ROAD 50 WEST
ELEVATION IN FEET (NAVD)
865
860
855
850
6500
7000
7500
8000
8500
9000
9500
10,000
10,500
11,000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH JACKSON DITCH
F
G
H
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
RASH DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
49P


DRAFT
MERIDIAN ROAD
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
870
865
860
855
11,000
11,500
12,000
12,500
13,000
13,500
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH JACKSON DITCH
I
J
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
RASH DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
50P



FLOOD PROFILES

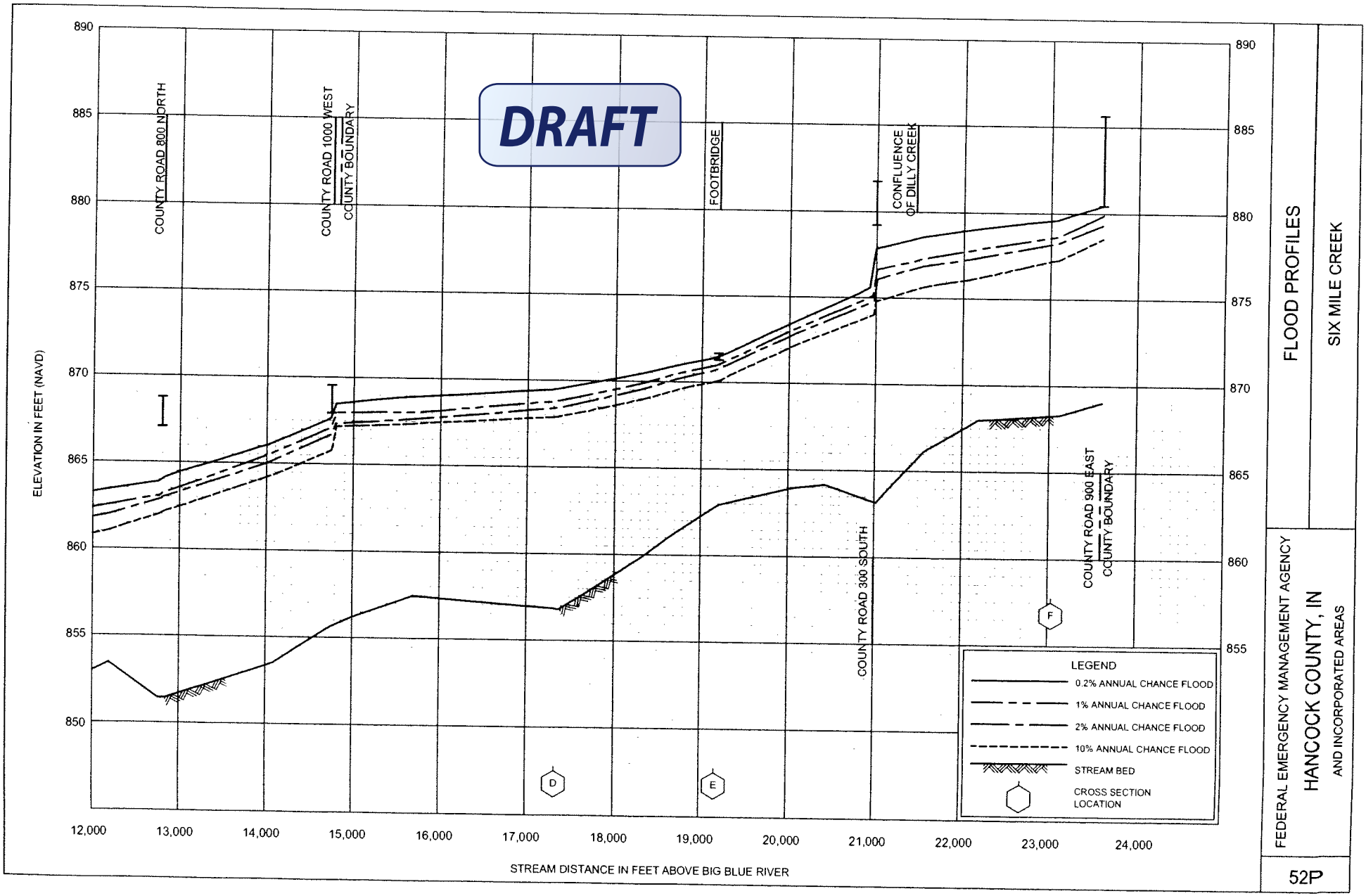
SIX MILE CREEK

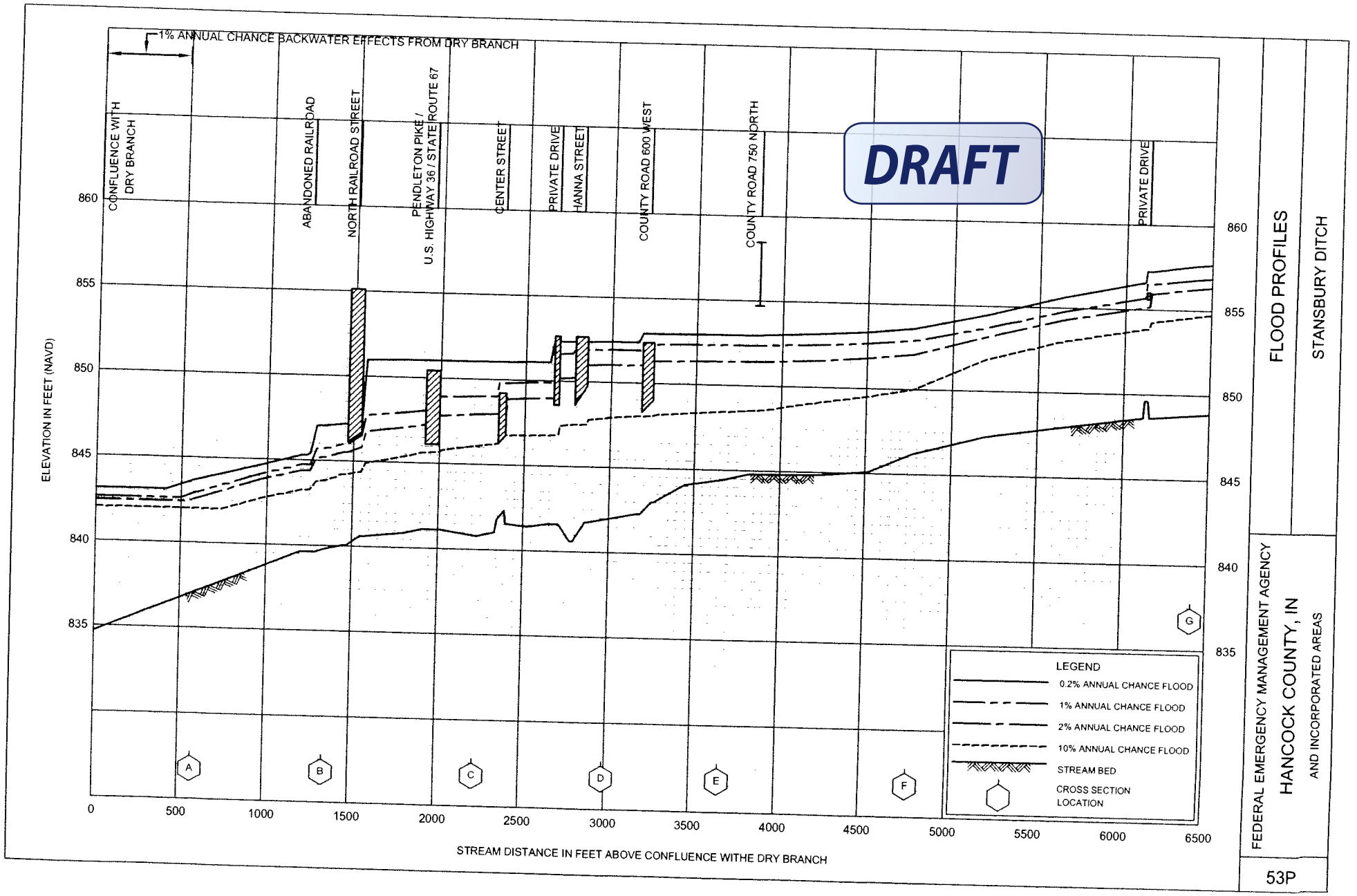
FEDERAL EMERGENCY MANAGEMENT AGENCY

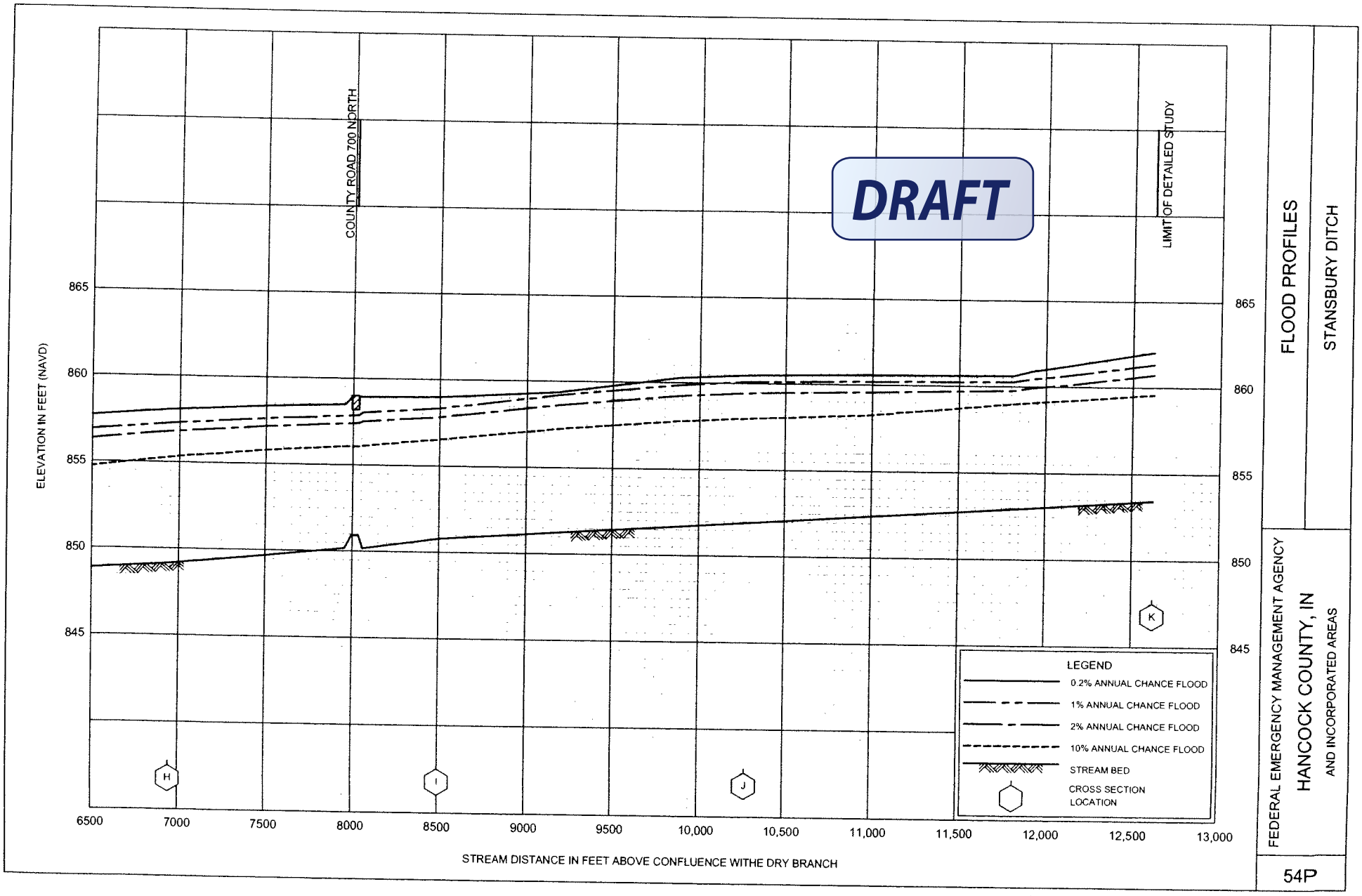
HANCOCK COUNTY, IN

AND INCORPORATED AREAS

51P


DRAFT
ELEVATION IN FEET (NAVD)
890
885
880
875
870
865
860
855
850
COUNTY ROAD 800 NORTH
COUNTY ROAD 1000 WEST
COUNTY BOUNDARY
FOOTBRIDGE
CONFLUENCE OF DILLY CREEK
COUNTY ROAD 300 SOUTH
COUNTY ROAD 900 EAST
COUNTY BOUNDARY
D
E
F
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
12,000
13,000
14,000
15,000
16,000
17,000
18,000
19,000
20,000
21,000
22,000
23,000
24,000
STREAM DISTANCE IN FEET ABOVE BIG BLUE RIVER
FLOOD PROFILES
SIX MILE CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
52P


1% ANNUAL CHANCE BACKWATER EFFECTS FROM DRY BRANCH
CONFLUENCE WITH DRY BRANCH
ABANDONED RAILROAD
NORTH RAILROAD STREET
PENDLETON PIKE / U.S. HIGHWAY 36 / STATE ROUTE 67
CENTER STREET
PRIVATE DRIVE
HANNA STREET
COUNTY ROAD 600 WEST
COUNTY ROAD 750 NORTH
PRIVATE DRIVE
DRAFT
ELEVATION IN FEET (NAVD)
860
855
850
845
840
835
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITHE DRY BRANCH
A
B
C
D
E
F
G
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
STANSBURY DITCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
53P



FLOOD PROFILES

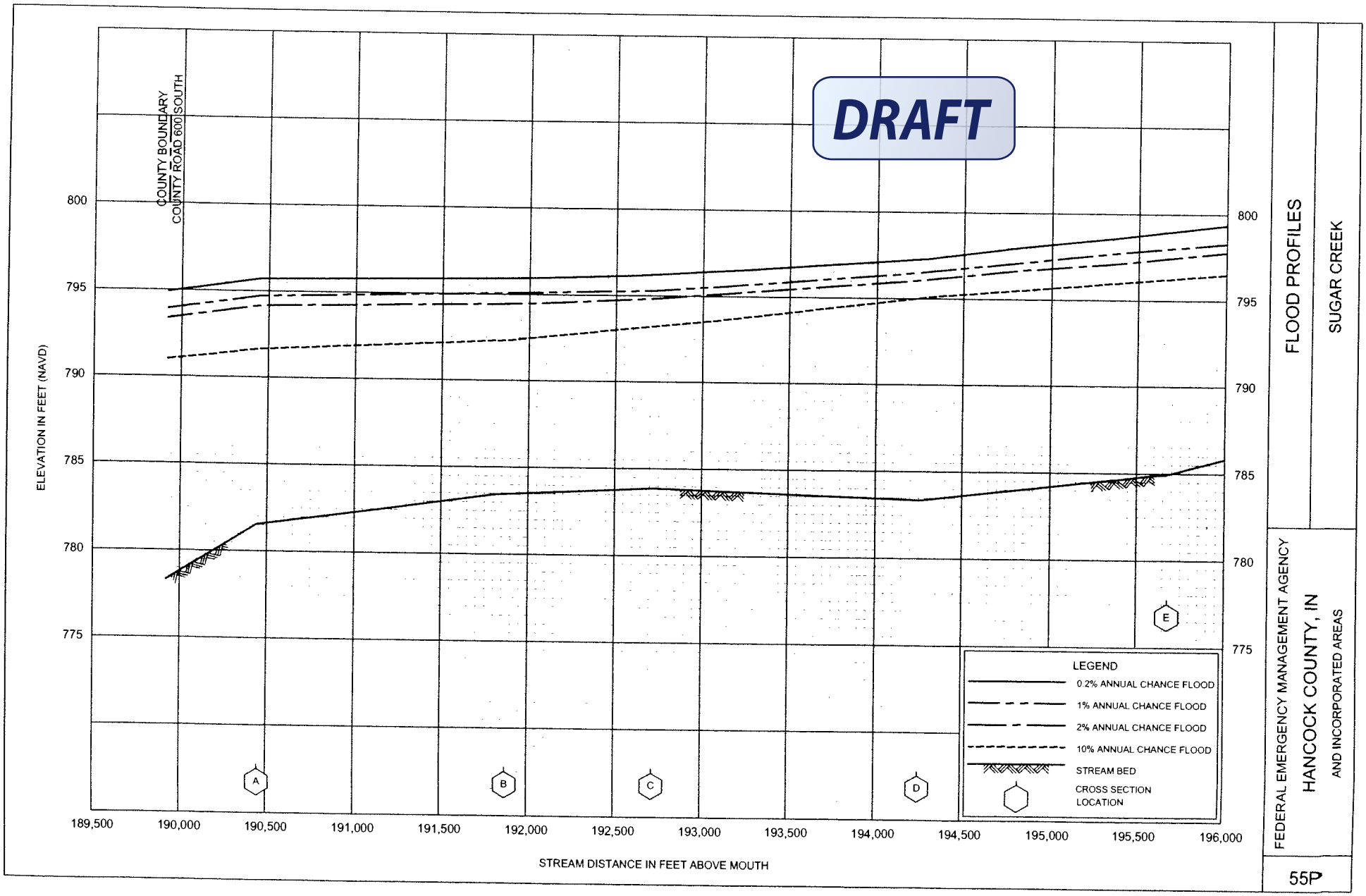
STANSBURY DITCH

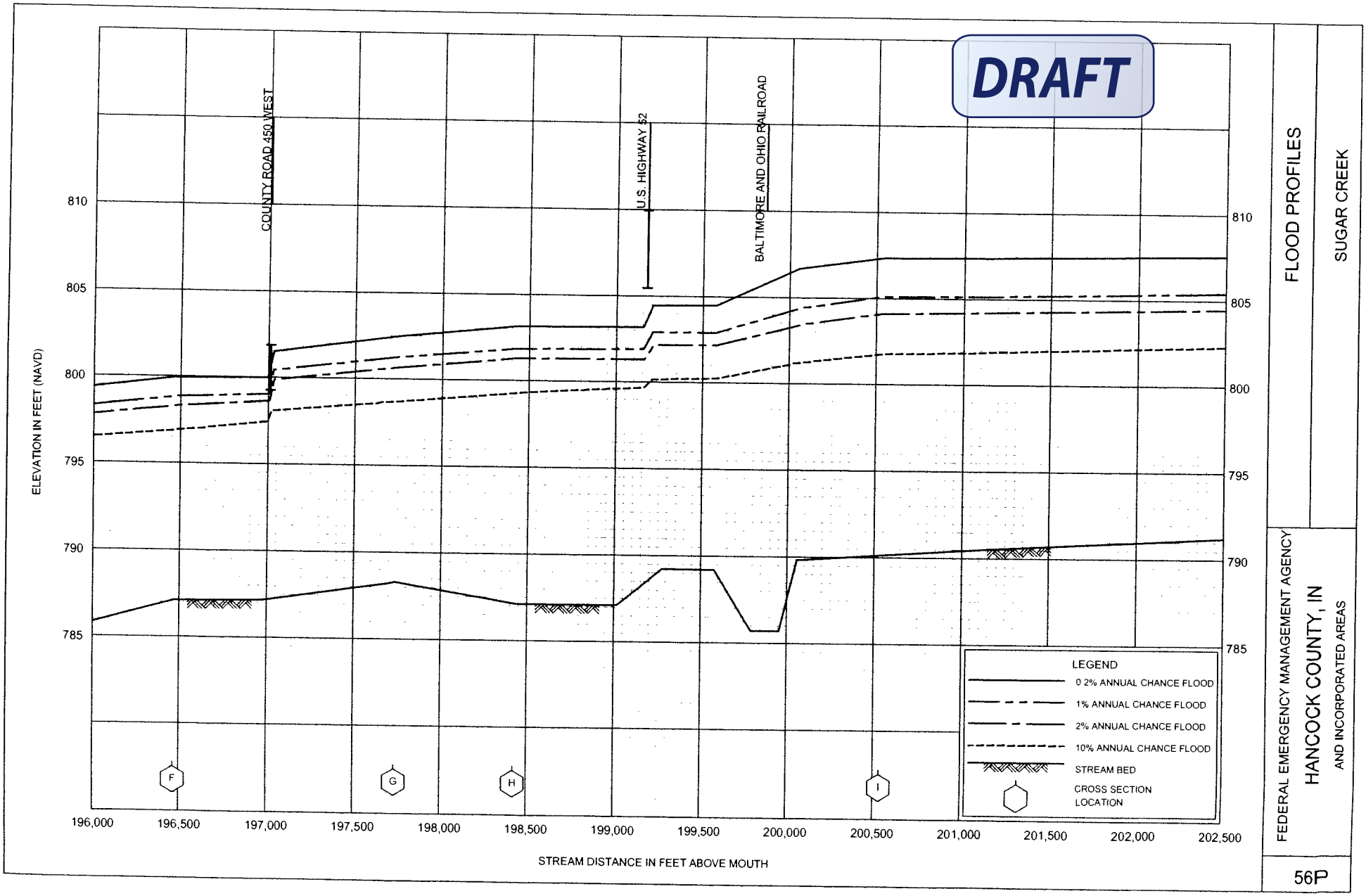
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

54P


DRAFT
COUNTY BOUNDARY
COUNTY ROAD 600 SOUTH
ELEVATION IN FEET (NAVD)
800
795
790
785
780
775
189,500
190,000
190,500
191,000
191,500
192,000
192,500
193,000
193,500
194,000
194,500
195,000
195,500
196,000
STREAM DISTANCE IN FEET ABOVE MOUTH
A
B
C
D
E
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
55P



FLOOD PROFILES

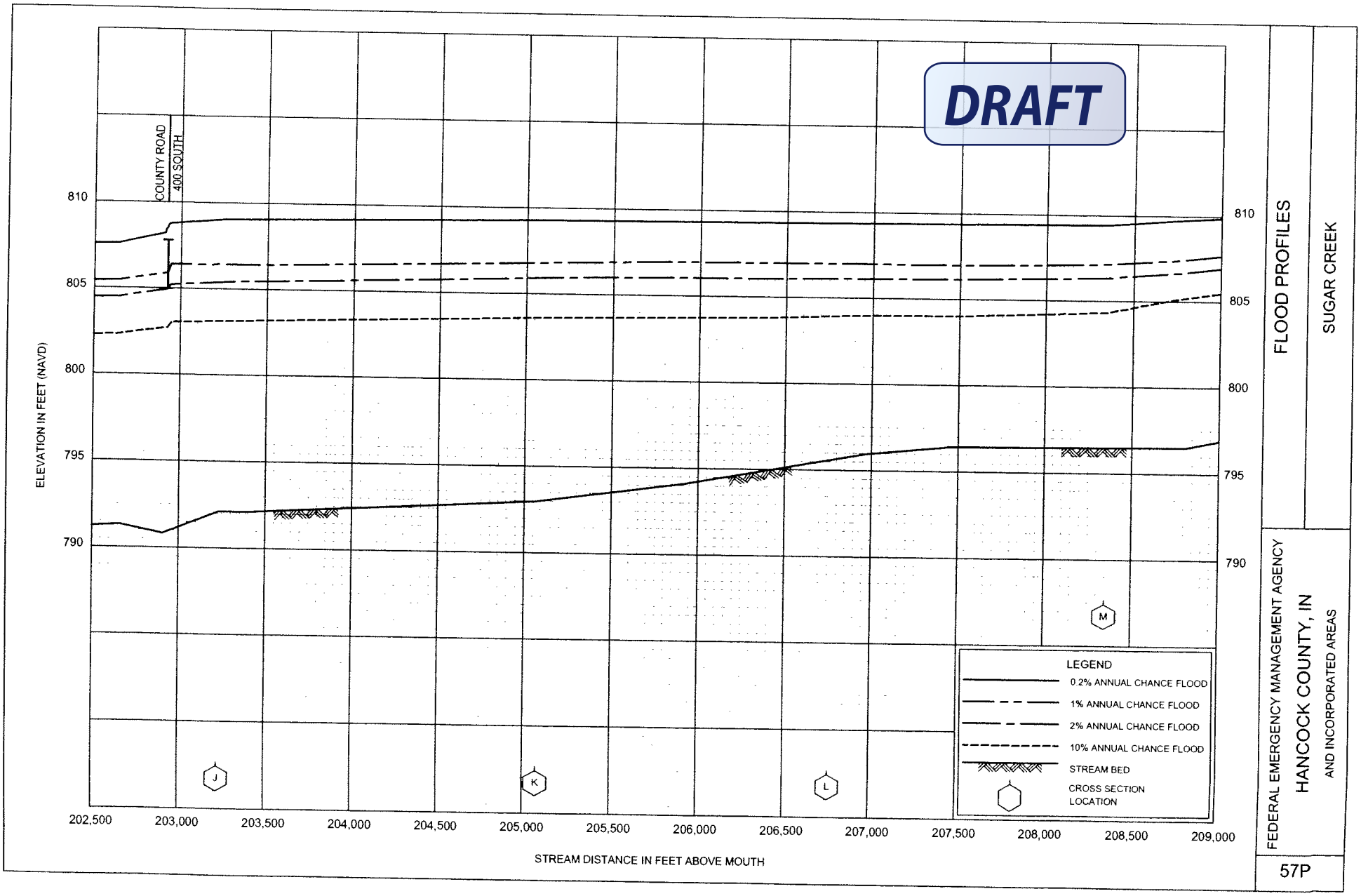
SUGAR CREEK

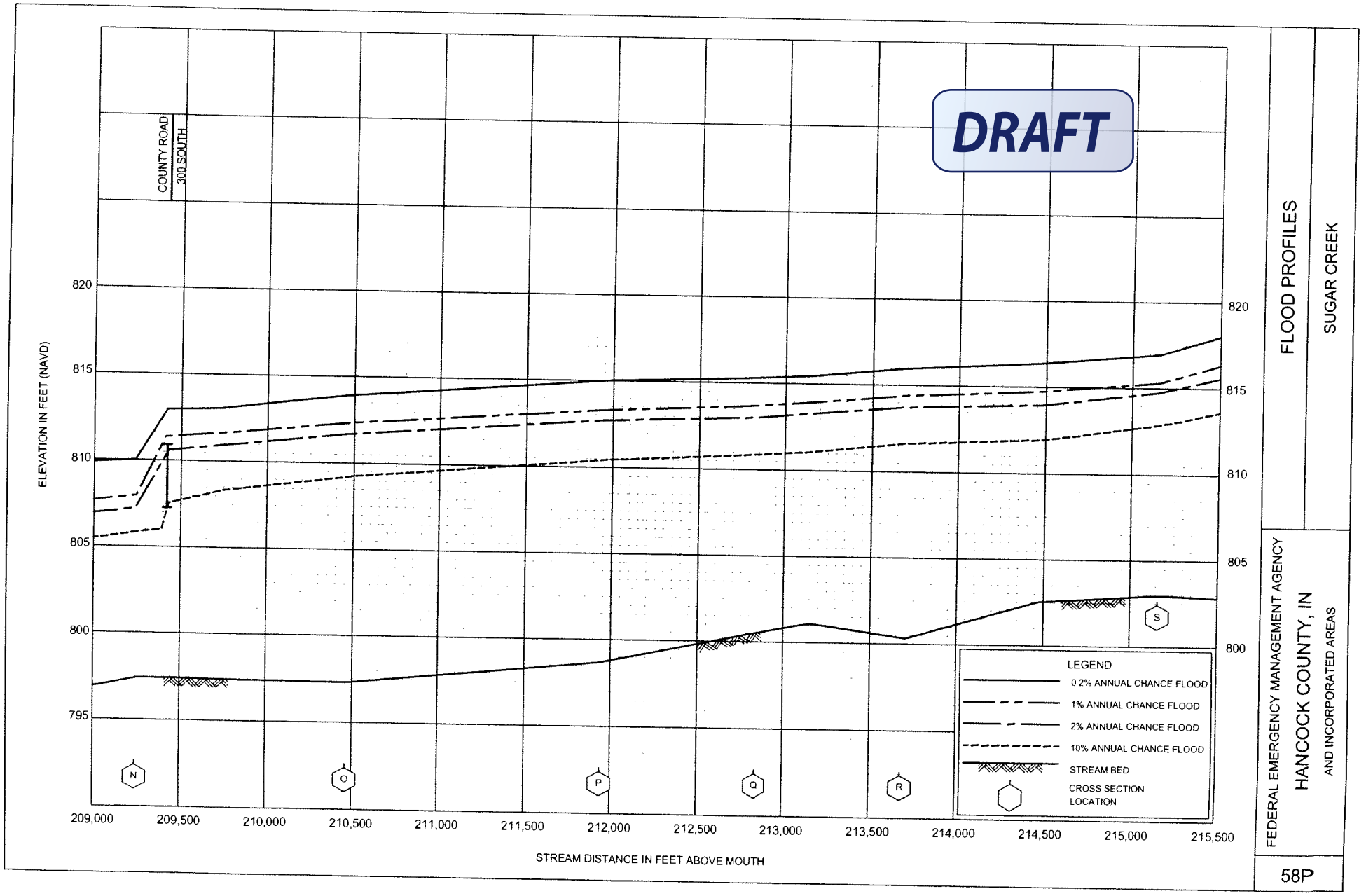
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

56P


DRAFT
COUNTY ROAD 400 SOUTH
ELEVATION IN FEET (NAVD)
810
805
800
795
790
202,500
203,000
203,500
204,000
204,500
205,000
205,500
206,000
206,500
207,000
207,500
208,000
208,500
209,000
STREAM DISTANCE IN FEET ABOVE MOUTH
J
K
L
M
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
57P



FLOOD PROFILES

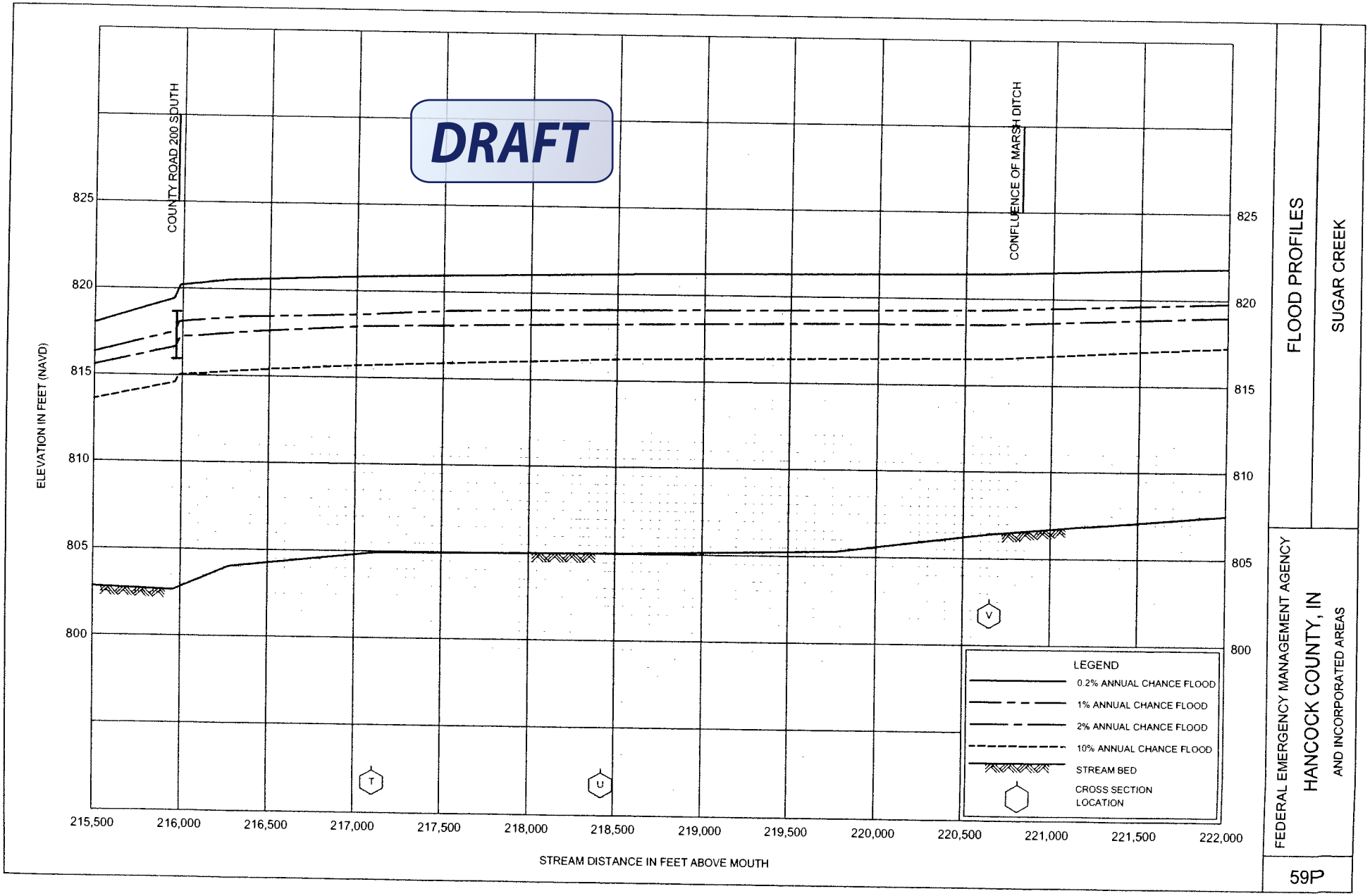
SUGAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

58P



FLOOD PROFILES

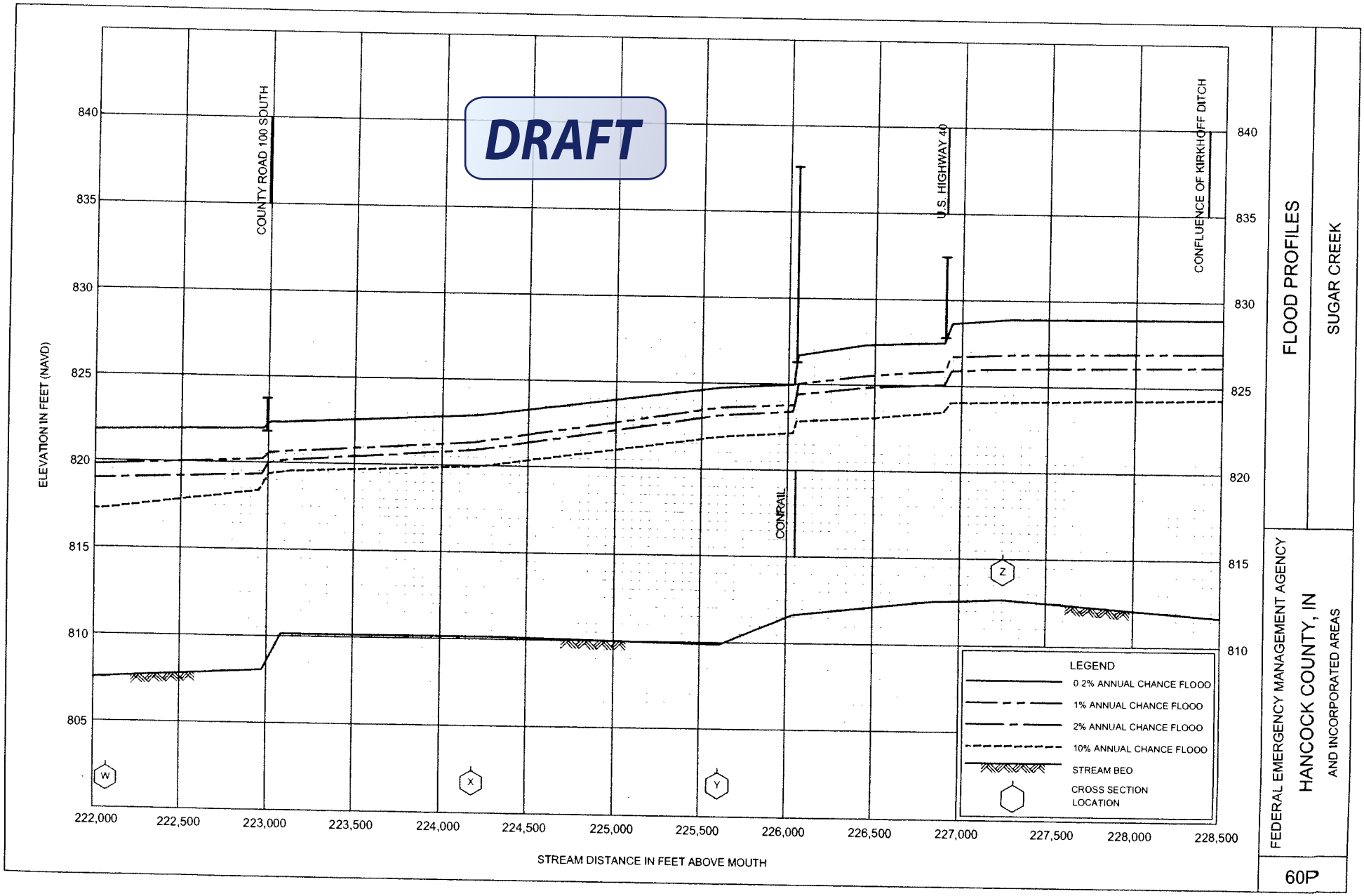
SUGAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

59P



FLOOD PROFILES

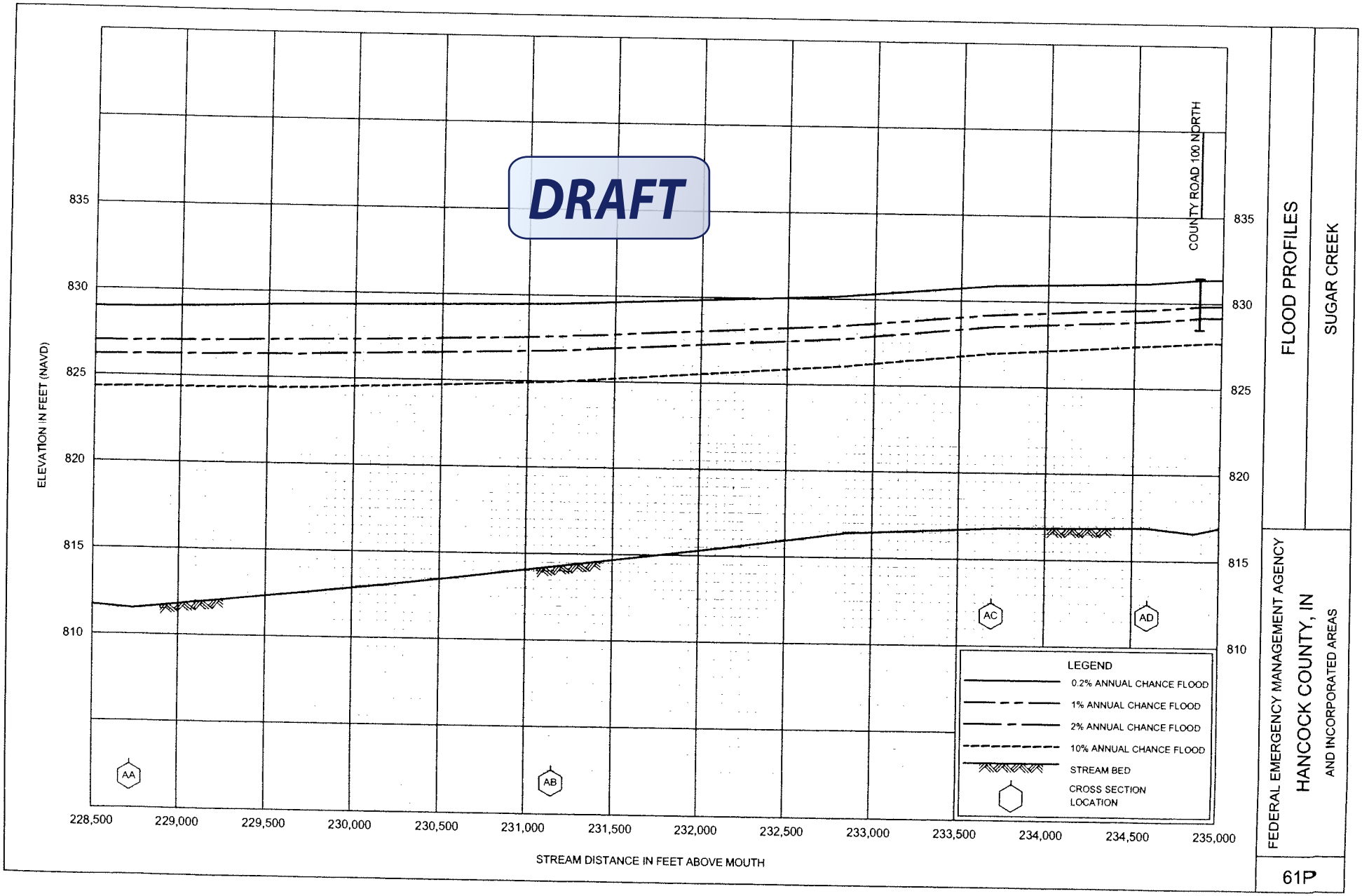
SUGAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

60P



FLOOD PROFILES

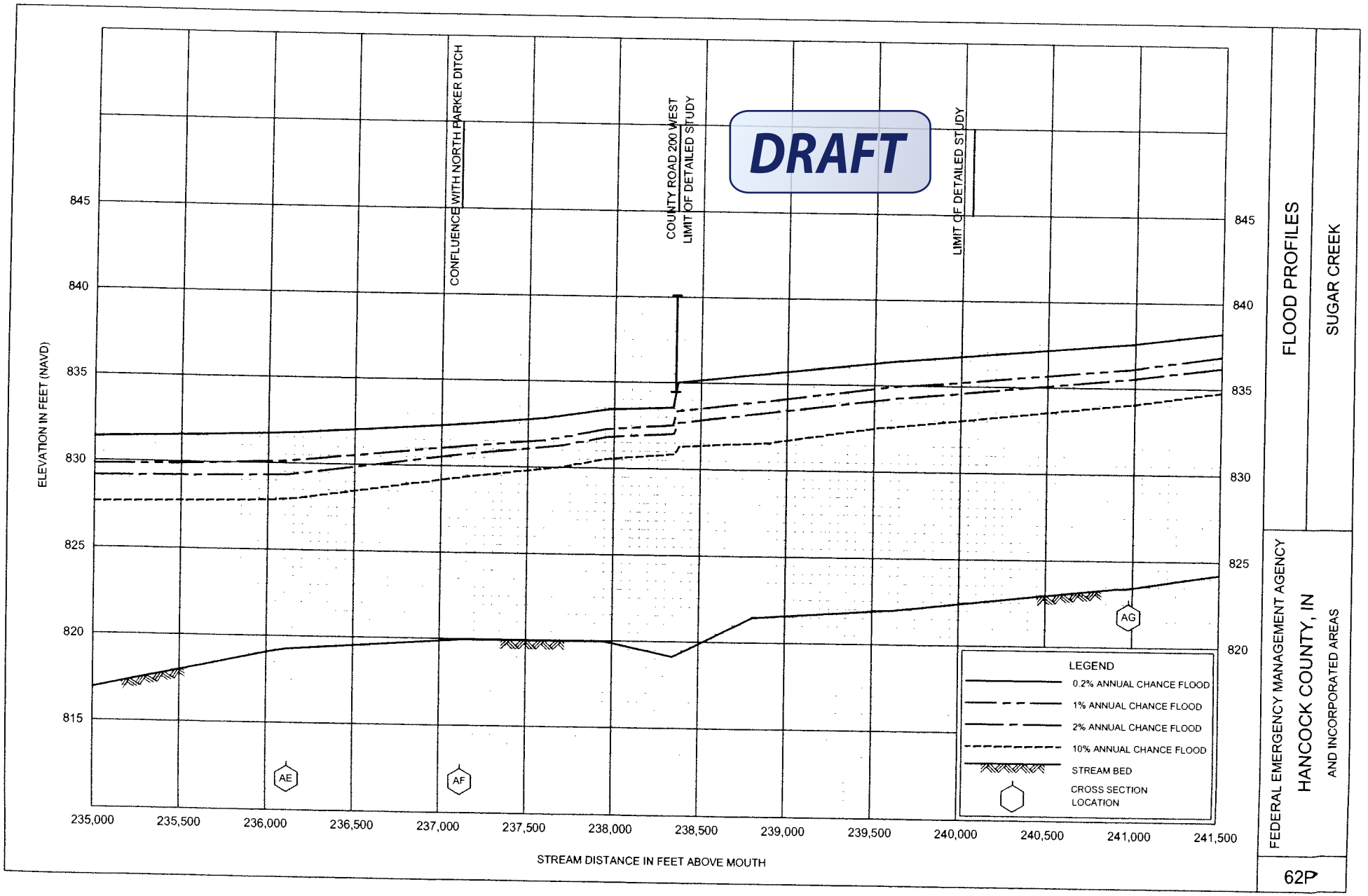
SUGAR CREEK

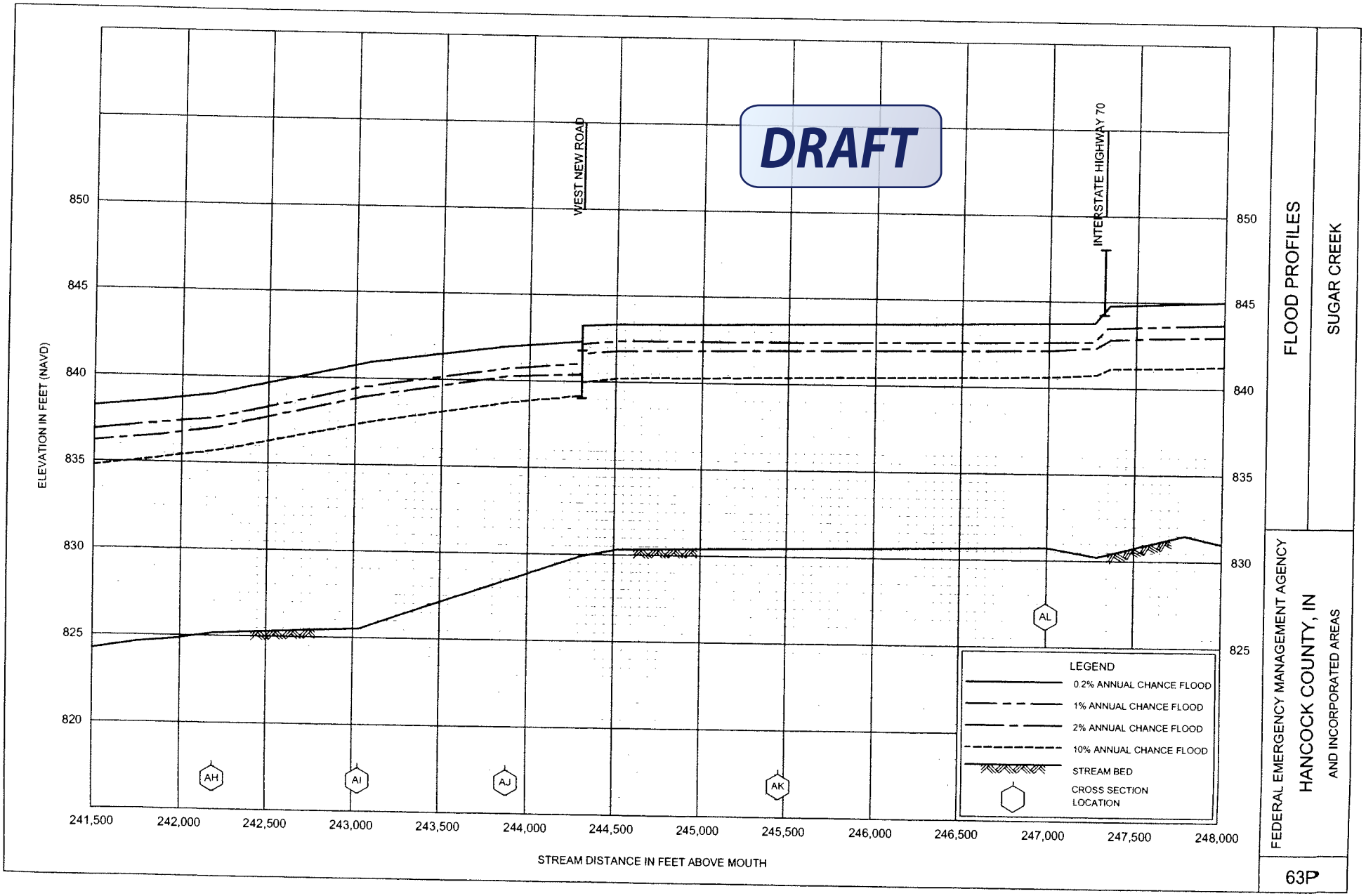
FEDERAL EMERGENCY MANAGEMENT AGENCY

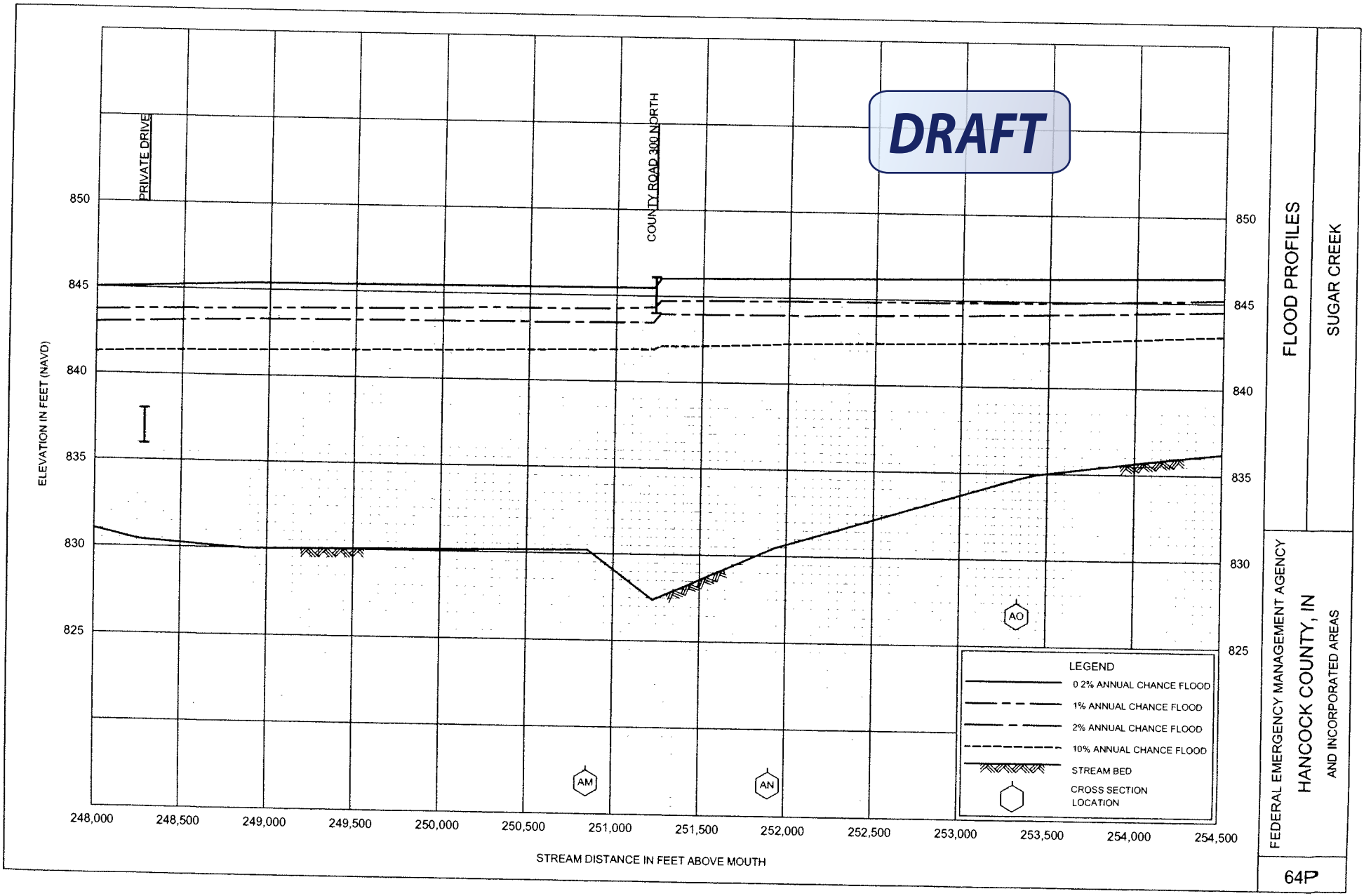
HANCOCK COUNTY, IN

AND INCORPORATED AREAS

61P


DRAFT
CONFLUENCE WITH NORTH PARKER DITCH
COUNTY ROAD 200 WEST
LIMIT OF DETAILED STUDY
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD)
845
840
835
830
825
820
815
AE
AF
AG
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
235,000
235,500
236,000
236,500
237,000
237,500
238,000
238,500
239,000
239,500
240,000
240,500
241,000
241,500
STREAM DISTANCE IN FEET ABOVE MOUTH
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
62P


DRAFT
WEST NEW ROAD
INTERSTATE HIGHWAY 70
ELEVATION IN FEET (NAVD)
850
845
840
835
830
825
820
AH
AI
AJ
AK
AL
241,500
242,000
242,500
243,000
243,500
244,000
244,500
245,000
245,500
246,000
246,500
247,000
247,500
248,000
STREAM DISTANCE IN FEET ABOVE MOUTH
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
63P



FLOOD PROFILES

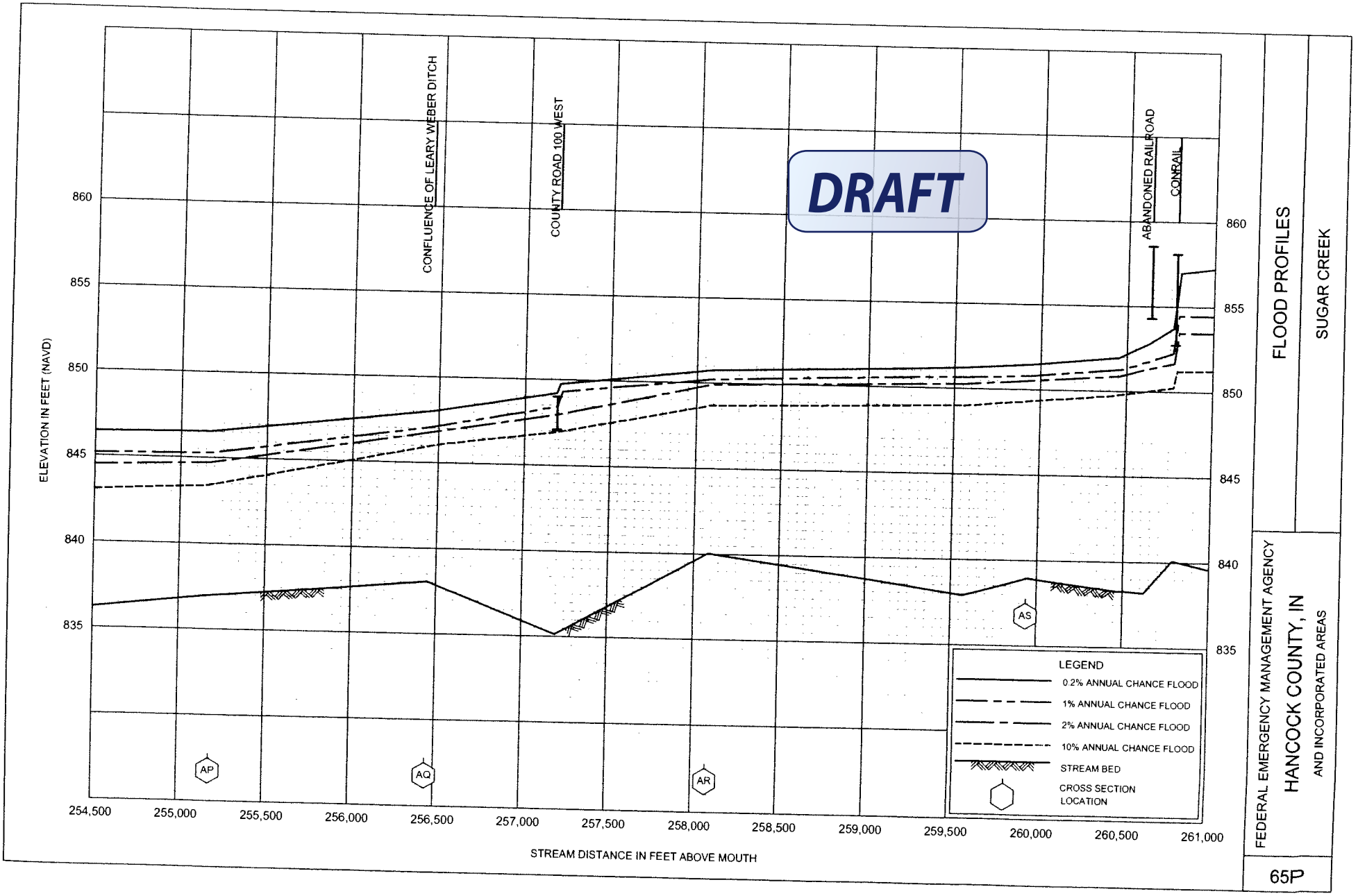
SUGAR CREEK

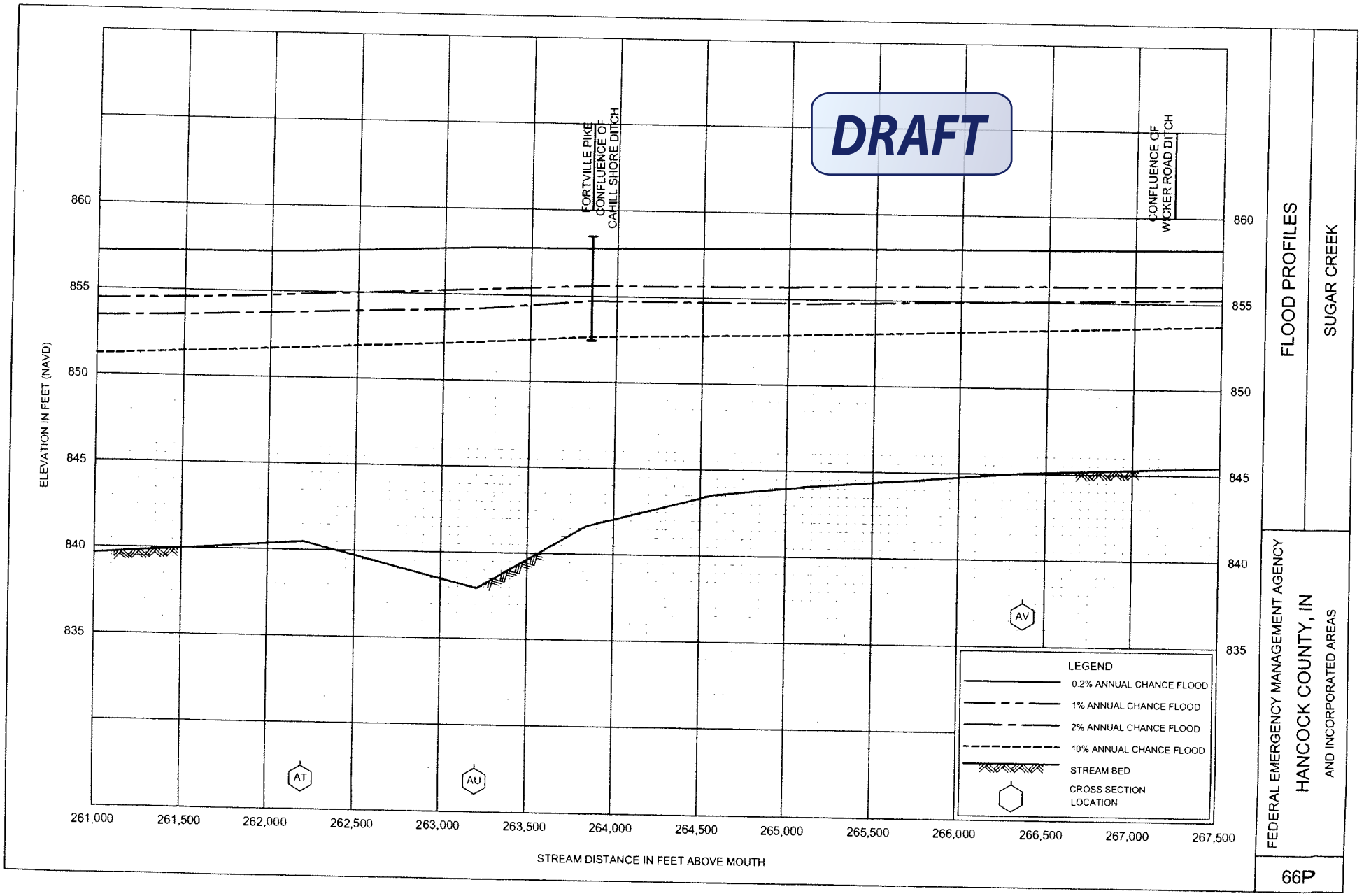
FEDERAL EMERGENCY MANAGEMENT AGENCY

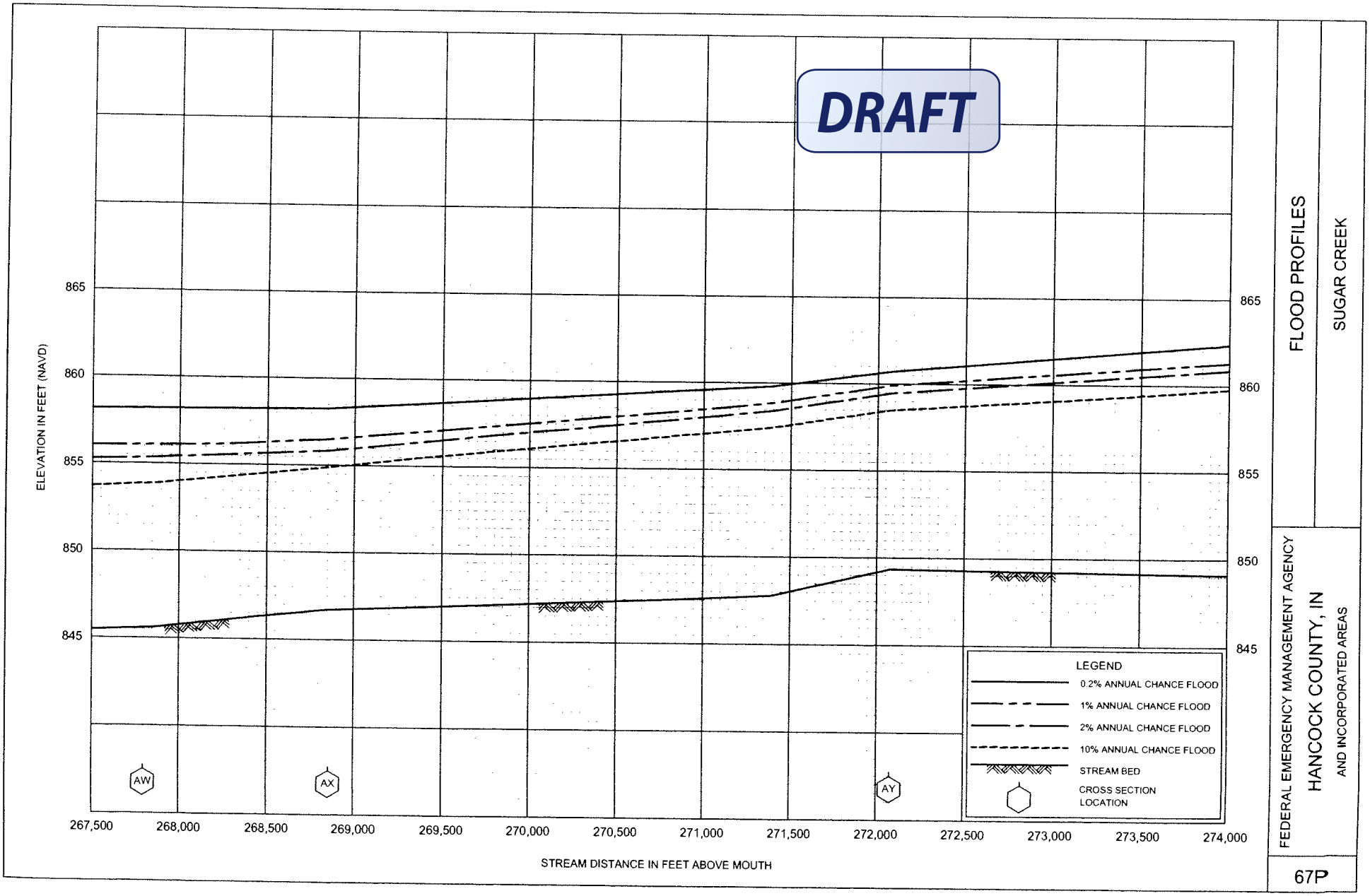
HANCOCK COUNTY, IN

AND INCORPORATED AREAS

64P


DRAFT
CONFLUENCE OF LEARY WEBER DITCH
COUNTY ROAD 100 WEST
ABANDONED RAILROAD
CONRAIL
ELEVATION IN FEET (NAVD)
860
855
850
845
840
835
254,500
255,000
255,500
256,000
256,500
257,000
257,500
258,000
258,500
259,000
259,500
260,000
260,500
261,000
STREAM DISTANCE IN FEET ABOVE MOUTH
AP
AQ
AR
AS
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
65P


DRAFT
FORTVILLE PIKE
CONFLUENCE OF
CAHILL SHORE DITCH
CONFLUENCE OF
WICKER ROAD DITCH
ELEVATION IN FEET (NAVD)
860
855
850
845
840
835
261,000
261,500
262,000
262,500
263,000
263,500
264,000
264,500
265,000
265,500
266,000
266,500
267,000
267,500
STREAM DISTANCE IN FEET ABOVE MOUTH
AT
AU
AV
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
66P



FLOOD PROFILES

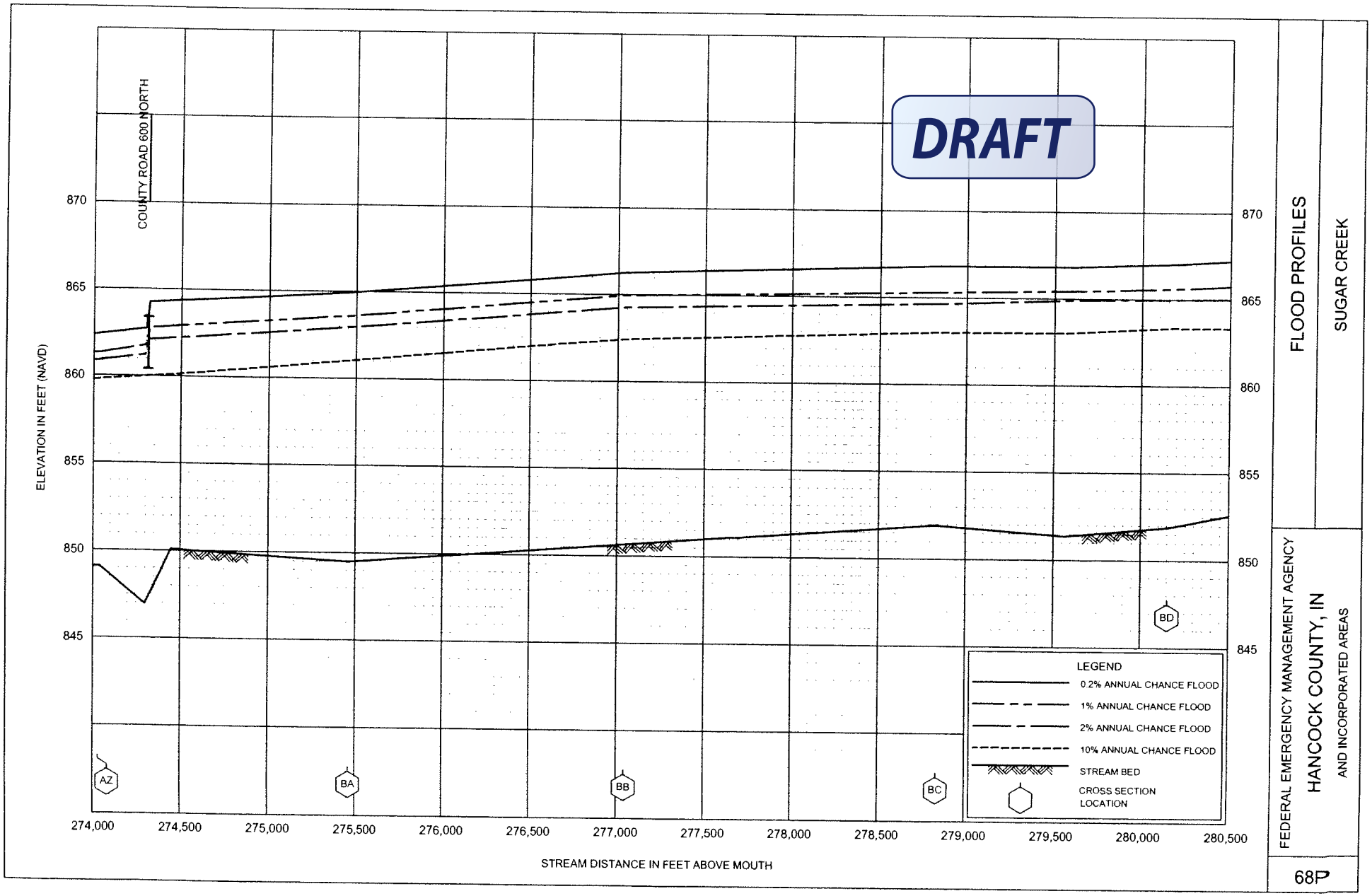
SUGAR CREEK

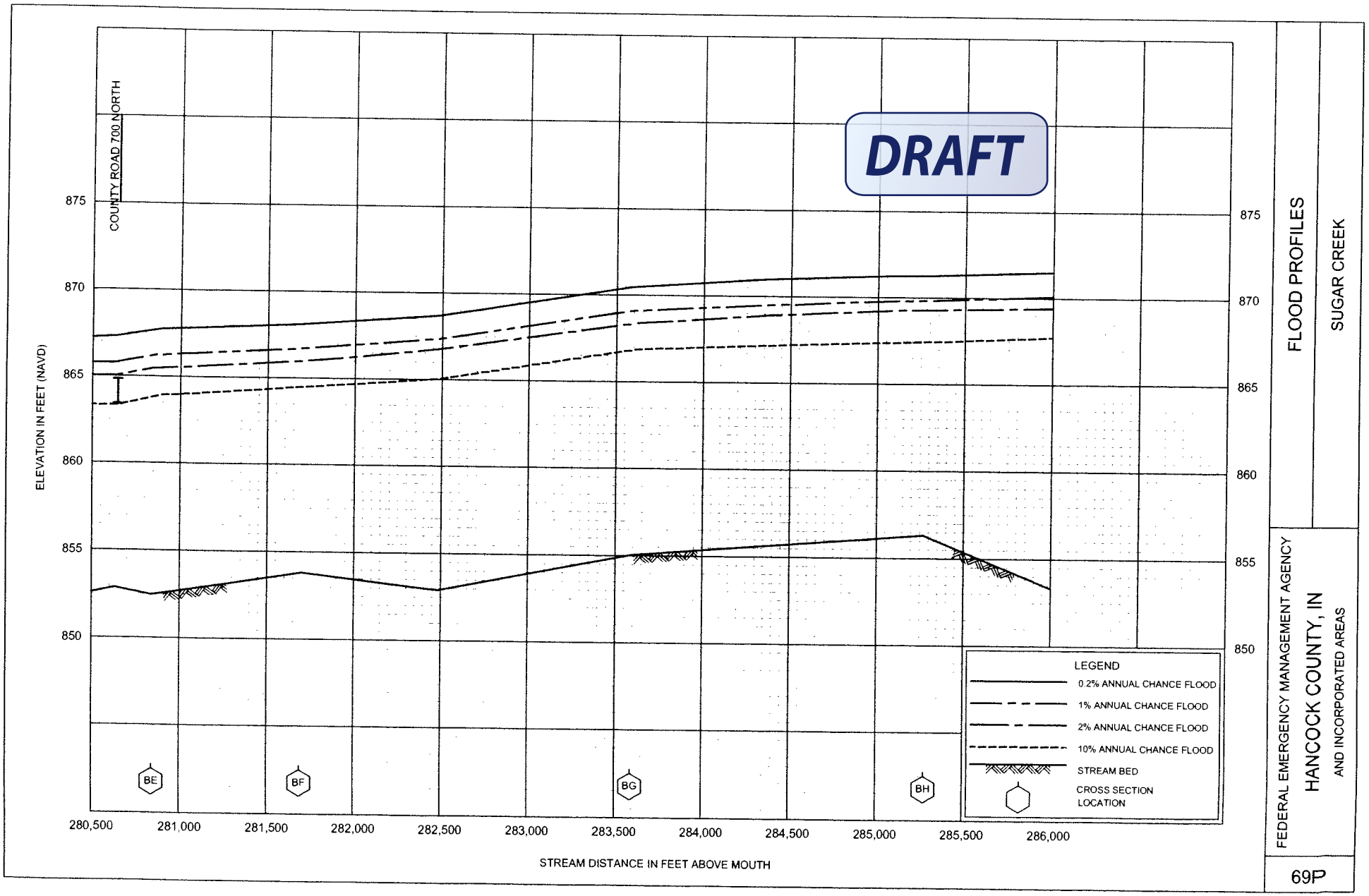
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

67P


DRAFT
COUNTY ROAD 600 NORTH
ELEVATION IN FEET (NAVD)
870
865
860
855
850
845
274,000
274,500
275,000
275,500
276,000
276,500
277,000
277,500
278,000
278,500
279,000
279,500
280,000
280,500
STREAM DISTANCE IN FEET ABOVE MOUTH
AZ
BA
BB
BC
BD
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
68P



FLOOD PROFILES

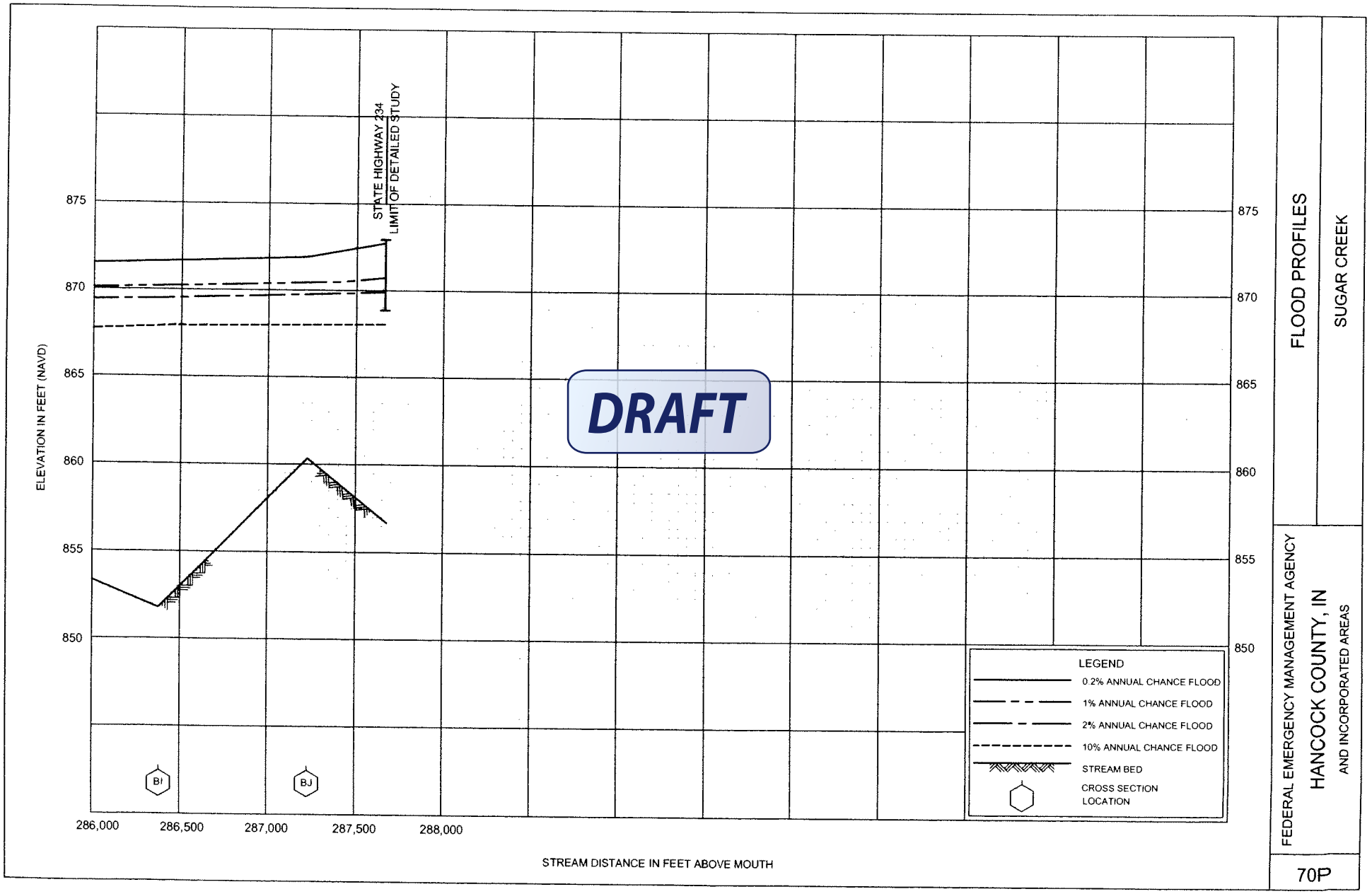
SUGAR CREEK

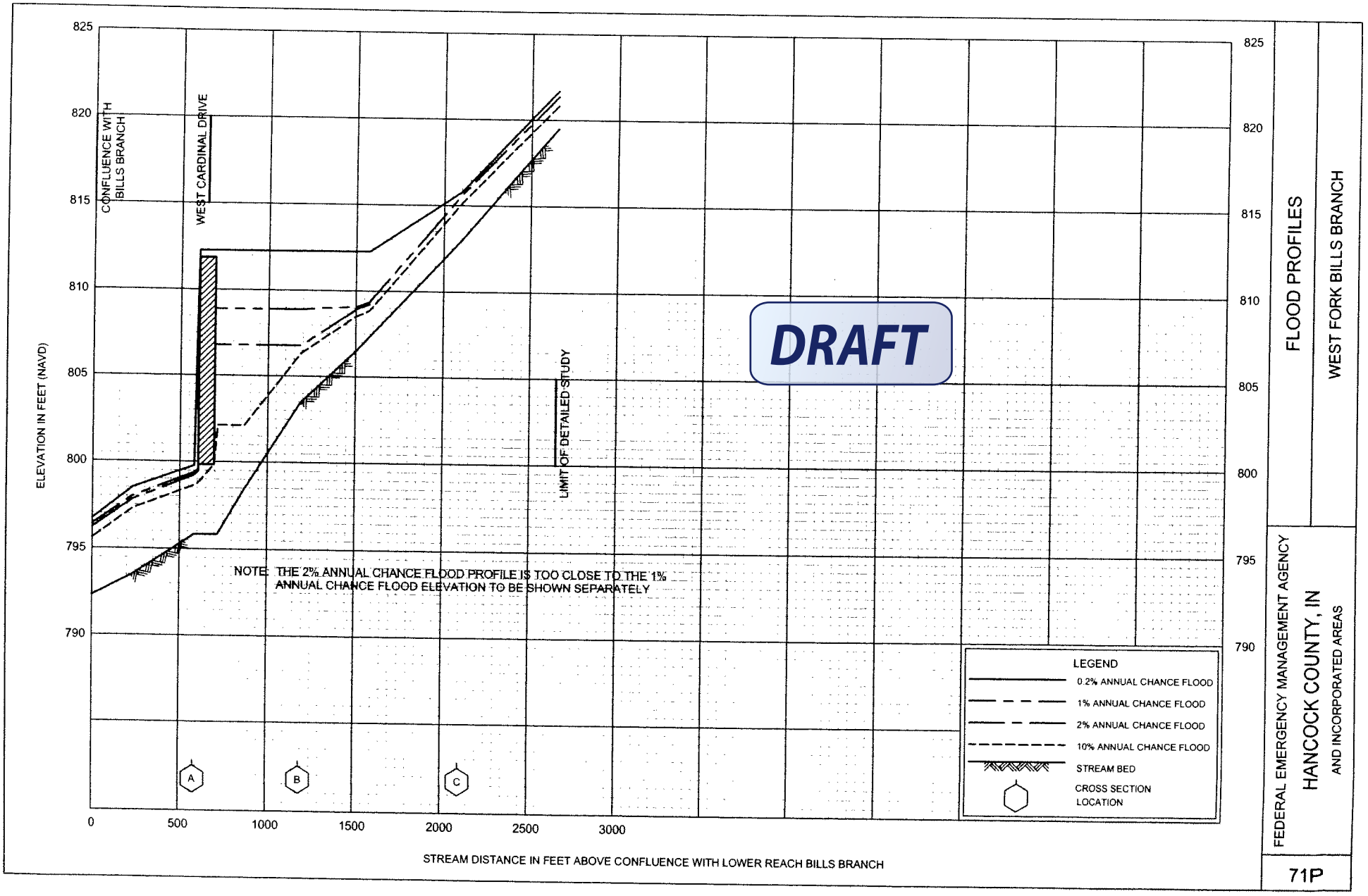
FEDERAL EMERGENCY MANAGEMENT AGENCY

HANCOCK COUNTY, IN

AND INCORPORATED AREAS

69P


STATE HIGHWAY 234
LIMIT OF DETAILED STUDY
DRAFT
ELEVATION IN FEET (NAVD)
875
870
865
860
855
850
286,000
286,500
287,000
287,500
288,000
STREAM DISTANCE IN FEET ABOVE MOUTH
BI
BJ
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
SUGAR CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
70P


825
820
815
810
805
800
795
790
ELEVATION IN FEET (NAVD)
CONFLUENCE WITH BILLS BRANCH
WEST CARDINAL DRIVE
LIMIT OF DETAILED STUDY
DRAFT
NOTE: THE 2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY
A
B
C
0
500
1000
1500
2000
2500
3000
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH LOWER REACH BILLS BRANCH
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
WEST FORK BILLS BRANCH
FEDERAL EMERGENCY MANAGEMENT AGENCY
HANCOCK COUNTY, IN
AND INCORPORATED AREAS
71P